

IN THE COMMONWEALTH COURT OF  
PENNSYLVANIA

\* \* \* \* \*

Carol Ann Carter; \*  
Monica Parrilla; \* CASES  
Rebecca Poyourow; \* CONSOLIDATED  
William Tung; \*  
Roseanne Milazzo; \* No.  
Burt Siegel; \* 464 MD 2021  
Susan Cassanelli; \*  
Lee Cassanelli; \*  
Lynn Wachman; \*  
Michael Guttman; \*  
Maya Fonkeu; \*  
Brady Hill; \*  
Mary Ellen Balchunis; \*  
Tom DeWall; \*  
Stephanie McNulty; \*  
And Janet Temin, \*  
Petitioners \*

V. \*  
Vernica Degraffenreid, \*  
in her official \*  
capacity as the Acting \*  
Secretary of the \*  
Commonwealth of \*  
Pennsylvania; and \*  
Jessica Mathis, in her \*  
Official capacity as \*  
Director for the \*  
Pennsylvania Bureau of \*  
Election Services and \*  
Notaries, \*

Respondents \*  
\*\*\*\*\*

BEFORE: PATRICIA A. MCCULLOUGH, JUDGE

HEARING: Thursday, January 27, 2022

9:40 a.m.

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Philip T. Gressman; \*  
 Ron Y. Donagi; \*  
 Kristopher R. Tapp; \*  
 Pamela Gorkin; \*  
 David P. Marsh; \*  
 James L. Rosenberger; \*  
 Amy Meyers; \*  
 Eugene Boman; \*  
 Gary Gordojn; \*  
 Liz McMahon; \* No.  
 Timothy G. Freman; \* 465 M.D. 2021  
 And Garth Isakk, \*  
 Petitioners \*  
 V. \*  
 Vernica Degraffenreid, \*  
 in her official \*  
 capacity as the Acting \*  
 Secretary of the \*  
 Commonwealth of \*  
 Pennsylvania; and \*  
 Jessica Mathis, in her \*  
 Official capacity as \*  
 Director for the \*  
 Pennsylvania Bureau of \*  
 Election Services and \*  
 Notaries, \*  
 Respondents \*  
 \* \* \* \* \*

LOCATION: Pennsylvania Judicial Center  
 601 Commonwealth Avenue  
 Suite 1500  
 Harrisburg, PA 17120

WITNESSES: Jonathan Rodden, Daryl  
 Deford, Moon Duchin, Michael Barber

Reporter: Nicole Montagano

A P P E A R A N C E S

MICHAEL R. MCDONALD, ESQUIRE

Ballard Spahr, LLP

1735 Market Street, 51st Floor

Philadelphia, PA 19103

Counsel for Carter Petitioners

MATTHEW P. GORDON, ESQUIRE

Perkins Coie LLP

1201 Third Avenue

Suite 4900

Seattle, WA 98101

Counsel for Carter Petitioners

JYOTI JASRASARIA, ESQUIRE

JOSEPH POSIMATO, ESQUIRE

Elias Law Group, LLP

10 G St. NE, Suite 600

Washington, D.C. 2002

Counsel for Carter Petitioners

A P P E A R A N C E S ( c o n ' t )

JESSICA RING AMUNSON, ESQUIRE

SAMUEL HIRSCH, ESQUIRE

LINDSAY HARRISON, ESQUIRE

TASSITY JOHNSON, ESQUIRE

Jenner & Block LLP

1099 New York Avenue, NW

Suite 900

Washington, DC 20001

Counsel for Gressman Petitioners

SHANNON E. MCCLURE, ESQUIRE

Reed Smith, LLP

Three Logan Square

1818 Arch Street

Suite 3100

Philadelphia, PA 19103

Counsel for Gressman Petitioners

A P P E A R A N C E S (con't)

ROBERT WIYGUL, ESQUIRE

CARY L. RICE, ESQUIRE

JOHN HILL, ESQUIRE

Hangley, Aronchick, Segal, Pudlin &  
Schiller

One Logan Square, 27th Floor

Philadelphia, PA 19103

Counsel for Respondents

MARCO S. ATTISANO, ESQUIRE

Attisano & Romano, LLC

429 Fourth Avenue

Suite 1705

Pittsburgh, PA 15219

Counsel for Senate Democratic  
Caucus

A P P E A R A N C E S (con't)

KEVIN GREENBERG, ESQUIRE

Greenberg Traurig, LLP

1717 Arch Street

Suite 400

Philadelphia, PA 19103

Counsel for Intervenors Anthony

Williams, Katie Muth, Maria

Collett and Sharif Street

EMMA F.E. SHOUCAIR, ESQUIRE

Dentons, Cohen & Grigsby

625 Liberty Avenue

5th Floor

Pittsburgh, PA 15222

Counsel for Senate Democratic

Caucus

A P P E A R A N C E S (con't)

ANTHONY R. HOLTZMAN, ESQUIRE

K&L Gates

17 North Second St., 18th Floor

Harrisburg, PA 17101-1507

Counsel for Proposed-Intervenors

Jake Corman, President Pro

Tempore of the Pennsylvania

Senate, and Kim Ward, Majority

Leader of the Pennsylvania Senate

JOSHUA J. VOSS, ESQUIRE

SHOHIN H. VANCE, ESQUIRE

MATT HAVERSTICK, ESQUIRE

SAMANTHA ZIMMER, ESQUIRE

Kleinbard, LLC

Three Logan Square

1717 Arch Street, 5th Floor

Philadelphia, PA 19103

Counsel for Guy Reschenthaler,

Jeffrey Varner, Tom Marino, Ryan

Costello and Bud Shuster

A P P E A R A N C E S (con't)

DAVID S. SENOFF, ESQUIRE

First Law Strategy Group, LLC

121 S. Broad Street

Suite 300

Philadelphia, PA 19107

Counsel for Intervenor

Representative JoAnna E.

McClinton, Leader of the

Democratic Caucus of the

Pennsylvania House of

Representatives

LAM DANG TRUONG, ESQUIRE

PA House of Representatives

620 Main Capitol Building

Harrisburg, PA 17120

Counsel for Intervenor Joanna

McClinton



## A P P E A R A N C E S (con't)

ROBERT J. TUCKER, ESQUIRE

Baker Hostetler

200 Civic Center Drive

Suite 1200

Columbus, OH 43215

Counsel for Proposed-Intervenors

Bryan Cutler, Speaker of the

Pennsylvania House of

Representatives, and Kerry

Beinzinghoff, Majority Leader of

The Pennsylvania House of

Representatives

PATRICK T. LEWIS, ESQUIRE

Baker Hostetler

Key Tower, 127 Public Square

Suite 200

Cleveland, OH 44114

Counsel for Speaker Cutler and

Leader Benninghoff of the

Pennsylvania House of

Representatives

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COURT CRIER HOLLAND:

All rise.

JUDGE McCULLOUGH:

Good morning.

THE WITNESS:

Good morning, Your  
Honor.

JUDGE MCCULLOUGH:

So thank you for being  
hearing, all being ready in this  
expedited matter. I just want to say  
good morning to everyone. We have  
some people in overflow rooms because  
of the space requirements, so  
hopefully they are able to hear us and  
see us. I assume that's all  
connected.

Well, welcome to the  
Commonwealth Court. I'm Judge  
Patricia McCullough, and I will be  
presiding over these proceedings as  
the Trial Judge. As most of you or  
all of you are aware, the Commonwealth

00:00:43 1 Court has two types of jurisdiction,  
00:00:44 2 one being as an appellate Court and  
00:00:46 3 the other as a trial Court in certain  
00:00:49 4 statewide matters. This is one of  
00:00:50 5 those cases. And whatever this  
00:00:52 6 Court's decision is, it can be  
00:00:53 7 appealed to the Supreme Court, which,  
00:00:56 8 of course, will have the final say.

00:00:59 9 Before the Court today  
00:01:00 10 and its original jurisdiction are the  
00:01:04 11 consolidated matters filed by two sets  
00:01:06 12 of Petitioners against Respondents,  
00:01:08 13 the acting Secretary of Elections and  
00:01:11 14 the Director for the Pennsylvania  
00:01:13 15 Bureau of Election Services and  
00:01:15 16 Notaries. The first case is Docketed  
00:01:17 17 at 464 MD 2022 and captioned Carol Ann  
00:01:22 18 Carter and 15 other Voters versus  
00:01:25 19 Leigh Chapman, et al. And the second  
00:01:27 20 one is Docketed at 465 MD 2022 and  
00:01:27 21 captioned Philip Gressman and 11 other  
00:01:37 22 Voters versus Leigh Chapman et. al.  
00:01:39 23 The actions challenge Pennsylvania's  
00:01:39 24 lack of the constitutional district  
00:01:41 25 boundaries for the 2022 election



00:01:44 1 cycle.

00:01:47 2 In 2020 the U.S. Census  
00:01:49 3 Bureau conducted for the 24th time in  
00:01:50 4 this country's history the decennial  
00:01:56 5 census for the purpose of, among other  
00:01:57 6 things, apportioning by population the  
00:01:58 7 435 voting members of the United  
00:02:01 8 States House of Representatives among  
00:02:02 9 the 50 states. Following the 2020  
00:02:02 10 Census, Pennsylvania's apportionment  
00:02:08 11 of Congressional seats was reduced yet  
00:02:10 12 again from 18 to 17. And Pennsylvania  
00:02:14 13 current Congressional District, which  
00:02:17 14 was adopted by the Supreme Court in  
00:02:18 15 2018 and legal voters has been used in  
00:02:22 16 the past two primary elections in one  
00:02:24 17 general election and contains 18  
00:02:27 18 districts thus, as we sit here today,  
00:02:31 19 Pennsylvania has no Congressional  
00:02:32 20 District map that squares with the  
00:02:36 21 newly allotted 17 congressional  
00:02:38 22 districts. And the constitution  
00:02:40 23 requires there to be an equal number  
00:02:40 24 of citizens in each Congressional  
00:02:43 25 District. In light of these changes,

00:02:46 1 the Petitioners ask the Court to  
00:02:48 2 declare unconstitutional the  
00:02:50 3 Pennsylvania's current Congressional  
00:02:50 4 District plan, enjoin the Respondents  
00:02:56 5 from using the current plan in any  
00:02:56 6 future elections and adopt a new  
00:02:59 7 congressional plan.

00:03:00 8 To be clear, this case is  
00:03:02 9 not about deciding whether a current  
00:03:04 10 map is unconstitutional due to  
00:03:08 11 partisan or racial gerrymandering.  
00:03:08 12 The issue before the Court is that the  
00:03:10 13 current map is now obsolete in light  
00:03:13 14 of the new census data and the parties  
00:03:16 15 in amici have filed proposed plans for  
00:03:18 16 the Court's consideration. Ordinarily  
00:03:21 17 redistricting is left to the  
00:03:25 18 legislature to undertake in the form  
00:03:26 19 of an act or a statute, which must be  
00:03:28 20 approved by the Governor to become  
00:03:31 21 law. The United States Constitution  
00:03:33 22 vests the state legislatures with the  
00:03:34 23 powers to determine the times, places  
00:03:35 24 and manner of holding elections for  
00:03:38 25 representatives subject to any rules

00:03:41 1 that Congress may establish. To date,  
00:03:44 2 the Governor and legislature have not  
00:03:49 3 agreed on a map. In anticipation that  
00:03:50 4 such approval might not be forthcoming  
00:03:51 5 in time for the candidates to prepare  
00:03:55 6 for the primary election and know the  
00:03:56 7 boundaries of their districts so they  
00:03:58 8 can circulate nomination petitions and  
00:04:01 9 campaign, Petitioners filed these  
00:04:03 10 lawsuits preemptively.

00:04:05 11 In response, this Court  
00:04:06 12 has taken this matter very seriously  
00:04:08 13 and acted as expeditiously and  
00:04:10 14 proactively as possible at every turn  
00:04:16 15 so that in the event that the  
00:04:17 16 legislature and Governor do not reach  
00:04:18 17 an agreement on a map by January 30th,  
00:04:20 18 2022, the Court imposed deadline, this  
00:04:22 19 Court will proceed to do so as  
00:04:24 20 expeditiously as possible.

00:04:27 21 On December 20th, 2021,  
00:04:29 22 this Court issued an Order setting  
00:04:31 23 expedited guidelines by which parties  
00:04:34 24 were required to file applications to  
00:04:36 25 intervene, including ordering that if

00:04:39 1 the General Assembly has not enacted a  
00:04:43 2 new congressional map which has been  
00:04:44 3 approved by the Governor by  
00:04:45 4 January 30th, 2022, the Court shall  
00:04:47 5 proceed to issue an Opinion based on  
00:04:50 6 the hearing and evidence presented by  
00:04:51 7 the parties here today as well as  
00:04:54 8 Amici.

00:04:55 9 In all, the Court  
00:04:56 10 received ten applications to  
00:04:57 11 intervene. On January 6th, 2022, I  
00:04:57 12 presided over a hearing on the  
00:05:02 13 applications to intervene. All ten  
00:05:04 14 applicants were provided an  
00:05:05 15 opportunity to argue why they should  
00:05:07 16 be permitted to intervene under the  
00:05:09 17 Pennsylvania Rules of Civil Procedure  
00:05:10 18 and to argue why their participation  
00:05:13 19 would not unduly delay or burden these  
00:05:16 20 necessary expedited proceedings.

00:05:17 21 After consideration of  
00:05:18 22 those arguments and evidence presented  
00:05:21 23 at that hearing, I issued an Order  
00:05:23 24 granting intervention to six parties  
00:05:25 25 on January 14th, which are the Speaker

00:05:27 1 and Majority Leader of the  
00:05:28 2 Pennsylvania House of Representatives  
00:05:29 3 and the President Pro Tempore and  
00:05:33 4 Majority Leader of the Pennsylvania  
00:05:34 5 Senate, Pennsylvania State Senators  
00:05:36 6 Maria Collett, Katie Muth, Sharif  
00:05:37 7 Street and Anthony Williams, Tom Wolf,  
00:05:41 8 Governor of the Commonwealth of  
00:05:42 9 Pennsylvania, Senator Jay Costa and  
00:05:44 10 members of the Democratic Caucus of  
00:05:47 11 the Senate of Pennsylvania,  
00:05:48 12 Representative Joanna McClinton,  
00:05:50 13 leader of the Democratic Caucus of the  
00:05:51 14 Pennsylvania House of Representatives,  
00:05:52 15 Congressman Guy Reschenthaler, Swatara  
00:05:56 16 Township Commissioner Jeff Varner, Tom  
00:05:57 17 Reno, Ryan Costello and Bud Shuster.

00:05:59 18 These six parties and  
00:06:00 19 their counsel are the ones presumably  
00:06:02 20 all present here today and ready to  
00:06:04 21 present evidence and legal argument on  
00:06:07 22 why their map should be the one the  
00:06:09 23 Court adopts.

00:06:10 24 The hearing today and  
00:06:11 25 tomorrow is for the purpose of

00:06:13 1 receiving evidence from the experts to  
00:06:15 2 explain from a technical and complex  
00:06:18 3 point of view how map drawing works  
00:06:21 4 and providing other opportunities an  
00:06:24 5 opportunity to challenge those  
00:06:26 6 opinions.

00:06:26 7 Four parties were  
00:06:27 8 permitted to also participate as  
00:06:31 9 Amici's participants. That is they  
00:06:32 10 were permitted to present a map, an  
00:06:35 11 expert report and a brief due to the  
00:06:37 12 time constraints and the expedience of  
00:06:40 13 the proceedings, but I want to make  
00:06:44 14 clear that that does not mean this  
00:06:44 15 Court will not give equal  
00:06:46 16 consideration to the maps and expert  
00:06:47 17 reports presented by these Amici.

00:06:50 18 Also, as we have all  
00:06:51 19 discussed during the various  
00:06:53 20 conferences and hearings held to date,  
00:06:54 21 the Court wants to hear from the  
00:06:55 22 parties their views on whether this  
00:06:57 23 Court will need to consider revisions  
00:06:59 24 to the 2022 election schedule  
00:07:02 25 calendar. So I'm looking forward to

00:07:05 1 hearing argument on that as well from  
00:07:06 2 the parties. Hopefully, we won't need  
00:07:11 3 to do that.

00:07:12 4 As you can see, our staff  
00:07:13 5 has worked hard to set up the  
00:07:13 6 courtroom and spaces at the tables for  
00:07:15 7 you all to sit I hope comfortably so  
00:07:21 8 that we can be in compliance with the  
00:07:22 9 current distancing requirements. The  
00:07:23 10 room capacity is limited to 23  
00:07:25 11 persons. It looks like every single  
00:07:27 12 spot is taken, so we ask that the  
00:07:29 13 parties be mindful of who they have  
00:07:31 14 present in the courtroom. At our  
00:07:33 15 pretrial conference each of you gave  
00:07:34 16 an estimate of the number of attorneys  
00:07:35 17 and support staff you anticipate would  
00:07:38 18 be in the courtroom at anytime. And  
00:07:39 19 again, we do have overflow rooms set  
00:07:41 20 up and prepared for you by our  
00:07:44 21 wonderful staff who have worked night  
00:07:46 22 and day to get everything ready in  
00:07:48 23 time, our IT staff, our prothonotary,  
00:07:48 24 Dion and Mark, thank you very much,  
00:07:48 25 our Court Criers, Dion Turner.

00:07:56 1 So it's my intent and  
00:07:59 2 hope that we can get through what we  
00:08:01 3 need to in these two days. But as I  
00:08:01 4 have cautioned the parties at the  
00:08:02 5 pretrial conference and then this  
00:08:05 6 morning at the status conference, if  
00:08:07 7 necessary, the Court is prepared to  
00:08:08 8 proceed over the weekend to make sure  
00:08:10 9 that everyone who has something to say  
00:08:14 10 has the opportunity to do so.  
00:08:17 11 Hopefully, that won't be necessary  
00:08:19 12 because, as we all discussed at the  
00:08:20 13 pretrial conference and as confirmed  
00:08:22 14 to you via an email from our  
00:08:24 15 prothonotary, Mr. Mike Crimmel, we  
00:08:26 16 have set out time limitations  
00:08:27 17 guidelines. I'll repeat those now so  
00:08:30 18 there's no confusion.

00:08:31 19 Each party will be  
00:08:32 20 permitted one hour to examine its  
00:08:34 21 expert witness on Direct Examination.  
00:08:37 22 Each party will be permitted  
00:08:38 23 15 minutes to cross examine each of  
00:08:41 24 the other parties' expert witnesses.  
00:08:43 25 And each party will be permitted 15 to



00:08:45 1 20 minutes to conduct Redirect  
00:08:48 2 Examination of its expert witness.  
00:08:49 3 And if I believe these times ---  
00:08:51 4 there's a need to tweak them based on  
00:08:54 5 the circumstances, I will do so. With  
00:08:56 6 the input of counsel pretrial  
00:08:58 7 conference, we have also agreed that  
00:08:59 8 each party will have eight minutes for  
00:09:01 9 their opening statements/argument and  
00:09:04 10 eight minutes for their closing  
00:09:06 11 statements/argument.  
00:09:08 12 As confirmed by Mr.  
00:09:11 13 Crimmell in his email to --- I will  
00:09:13 14 also state for the record the counsel  
00:09:17 15 for the Republican Senate Intervenors  
00:09:17 16 voluntarily offered that the Senate  
00:09:22 17 Intervenors will not present an expert  
00:09:22 18 witness, but will rely on the expert  
00:09:23 19 witness presented by the Republican  
00:09:23 20 House Intervenors. The Republican  
00:09:26 21 Senate Intervenors will defer to  
00:09:26 22 Republican House Intervenors'  
00:09:29 23 Examination and Cross Examination of  
00:09:31 24 experts and the Republican Senate  
00:09:36 25 Intervenors will present opening and

00:09:37 1 closing statements.

00:09:38 2 I also note that the  
00:09:39 3 parties entered into stipulations,  
00:09:42 4 which they advised the Court of this  
00:09:45 5 morning. They've stipulated that all  
00:09:48 6 experts testifying are deemed as  
00:09:49 7 qualified in their expert field.  
00:09:56 8 Thank you for doing that. They have  
00:09:58 9 also agreed to the admissibility of  
00:09:59 10 the testifying experts' reports, and I  
00:10:01 11 thank you for doing that as well. So  
00:10:03 12 it helps us expedite to the meaty  
00:10:05 13 matters here.

00:10:06 14 So as a last order of  
00:10:07 15 business, the parties will be  
00:10:08 16 presented in this order, as per our  
00:10:11 17 discussions, Carter Petitioners  
00:10:15 18 Gressman, Petitioners Respondent  
00:10:15 19 Chapman and Mathias, Governor Tom  
00:10:15 20 Wolf, Republican Legislative  
00:10:21 21 Intervenors Cutler --- Representative  
00:10:23 22 Cutler and Senator Wolf and Corman and  
00:10:23 23 Warner, Congressional Intervenors  
00:10:28 24 House Democratic Intervenors, that's  
00:10:32 25 Representative McClinton and Senate

00:10:33 1 Democratic Intervenors, Senator Jay  
00:10:37 2 Costa, et al.

00:10:38 3 So does anyone have  
00:10:40 4 anything at this point that they need  
00:10:42 5 to bring to the Court's attention?  
00:10:42 6 Good. Thank you. That's why we had a  
00:10:42 7 status conference.

00:10:43 8 Okay.

00:10:48 9 With that in this  
00:10:49 10 critical matter affecting the  
00:10:52 11 constitutional rights of the people,  
00:10:52 12 we will now proceed to hear argument,  
00:10:55 13 receive evidence and consider the  
00:10:56 14 proposed plans that were timely filed  
00:10:59 15 by the parties in Amici on or before  
00:11:02 16 January 24th, 2022. I almost said  
00:11:02 17 '20.

00:11:11 18 So would the Carter  
00:11:11 19 Petitioners --- counsel for Carter  
00:11:11 20 Petitioners, please come to the  
00:11:12 21 podium, and you can make your opening  
00:11:14 22 argument.

00:11:20 23 ATTORNEY JASRASARIA:

00:11:32 24 Good morning, Your  
00:11:32 25 Honor. And may it please the Court,

00:11:33 1 my name is Jyoti Jasrasaria, and I  
00:11:34 2 represent the Carter Petitioners who  
00:11:36 3 first filed this lawsuit six weeks  
00:11:38 4 ago. I'd like to start by thanking  
00:11:41 5 the Court for its time and attention  
00:11:43 6 to this important matter.

00:11:45 7 This Court is faced with  
00:11:47 8 an unenviable task. Twelve (12)  
00:11:51 9 parties and Amici have submitted  
00:11:52 10 congressional redistricting plans for  
00:11:54 11 this Court's consideration along with  
00:11:56 12 metrics and arguments on a variety of  
00:11:59 13 factors and the Court must sift  
00:12:01 14 through the data and the arguments to  
00:12:03 15 choose only one. But fortunately this  
00:12:06 16 Court need not wade into uncharted  
00:12:10 17 territory to accomplish this task, for  
00:12:12 18 it has not one but two Pennsylvania  
00:12:14 19 Court cases that together provide a  
00:12:16 20 roadmap on how to arrive at a fair and  
00:12:19 21 compliant Court adopted redistricting  
00:12:24 22 plan.

00:12:24 23 Just four years ago the  
00:12:26 24 Pennsylvania Supreme Court adopted the  
00:12:28 25 2018 plan after striking down the

00:12:29 1 previous plan as an unconstitutional  
00:12:32 2 gerrymander. There the Court analyzed  
00:12:35 3 proposed maps along four factors.  
00:12:40 4 Contiguity, population of quality,  
00:12:44 5 compactness and respect for political  
00:12:44 6 subdivision boundaries.

00:12:47 7 When looking at these  
00:12:48 8 four factors in this case, we just see  
00:12:51 9 subtle variations among the proposed  
00:12:53 10 maps. The Carter plan is exemplary on  
00:12:59 11 all of these measures, but for the  
00:13:01 12 most part, all of these maps are  
00:13:02 13 contiguous, equally populated,  
00:13:02 14 relatively compact and respectful of  
00:13:07 15 political subdivisions, so it's  
00:13:09 16 difficult to draw distinctions along  
00:13:09 17 these measures, and therefore this  
00:13:13 18 Court is still left with the question  
00:13:15 19 of how to choose a plan.

00:13:16 20 Luckily, the Supreme  
00:13:18 21 Court's determination in Mellow V  
00:13:21 22 Mitchell supplies the answer. After a  
00:13:23 23 similar impasse between the political  
00:13:26 24 branches in 1992, the Court in Mellow  
00:13:28 25 upheld the Commonwealth Court's choice

00:13:31 1 of the map and did so by representing  
00:13:34 2 that three additional criteria could  
00:13:37 3 be considered and these were partisan  
00:13:39 4 fairness, communities of interest and  
00:13:41 5 preserving the cores of existing  
00:13:45 6 districts.

00:13:45 7 On the first two of  
00:13:46 8 these factors, partisan fairness and  
00:13:48 9 communities of interest, the Carter  
00:13:49 10 Petitioners contend that some plans  
00:13:52 11 strike a fair and more reasonable  
00:13:54 12 balance than others. In particular,  
00:13:56 13 we believe that the Carter plan does  
00:13:59 14 well --- very well on these categories  
00:14:01 15 and we also believe that some of the  
00:14:04 16 plans, notably HB-2146, the voters of  
00:14:08 17 Pennsylvania plan, the Citizen Voters  
00:14:11 18 plan and the two Reschenthaler plans  
00:14:15 19 should not be adopted on these  
00:14:17 20 grounds. But ultimately neither of  
00:14:19 21 these two factors either provide a  
00:14:20 22 straightforward objective standard for  
00:14:22 23 this Court to select just one plan.

00:14:25 24 That leaves only the  
00:14:27 25 preserving of the core of existing

00:14:31 1 districts, an objective metric that  
00:14:32 2 not only follows for Mellow, but is  
00:14:34 3 consistent with the least change  
00:14:36 4 approach that Court's routinely follow  
00:14:38 5 when tasked with taking up  
00:14:40 6 redistricting after the political  
00:14:43 7 branches have failed to enact a plan,  
00:14:47 8 as they did here.

00:14:48 9 As set forth in our  
00:14:48 10 papers, and as we will demonstrate  
00:14:49 11 during this hearing, the Carter plan  
00:14:50 12 performs in the top tier of plans on  
00:14:53 13 all of the criteria that I've  
00:14:54 14 mentioned. But when you focus in on  
00:14:57 15 this final factor preserving the  
00:15:00 16 previous core adopted congressional  
00:15:00 17 districts, it is in a league of its  
00:15:03 18 own. Even after the loss of a  
00:15:05 19 Congressional district after this past  
00:15:11 20 year's census results, 87 percent of  
00:15:12 21 Pennsylvania voters are able to remain  
00:15:14 22 in the same district that they were in  
00:15:15 23 before, which is significantly higher  
00:15:17 24 than the same measure for the next  
00:15:20 25 best plan and all of the rest that

00:15:22 1 follow.

00:15:22 2 And this isn't just a  
00:15:23 3 percentage that's divorced from  
00:15:24 4 reality. Preserving the cores of  
00:15:25 5 districts means continuity for  
00:15:30 6 Pennsylvania voters, whose districts  
00:15:30 7 have already changed once in the past  
00:15:32 8 few years, and it also means  
00:15:33 9 recognizing the very unique  
00:15:34 10 circumstances that we're in during  
00:15:36 11 this current cycle.

00:15:37 12 Today we have a  
00:15:38 13 Congressional map that just four years  
00:15:40 14 ago the Supreme Court held to be  
00:15:43 15 constitutional and superior to all of  
00:15:45 16 the many others that it considered.  
00:15:48 17 The 2018 map reflects a long record  
00:15:51 18 that was developed in the Commonwealth  
00:15:53 19 Court and was the result of careful  
00:15:54 20 consideration about the same criteria  
00:15:56 21 that are at issue today.

00:15:58 22 Of course, due to  
00:16:00 23 changes in population that have led to  
00:16:02 24 the loss of the Congressional seat,  
00:16:04 25 that map can't stand as it is, but it



00:16:06 1 can and should be a starting point.  
00:16:08 2 And there is no reason that the Court  
00:16:11 3 shouldn't hue as closely as possible  
00:16:13 4 to that plan. Indeed, maintaining  
00:16:15 5 fidelity to the 2018 map, while  
00:16:19 6 striving to improve on it, on  
00:16:21 7 traditional criteria grounds is not  
00:16:21 8 just reasonable but worthwhile.

00:16:24 9 The 2018 map is a  
00:16:26 10 physical manifestation of the Supreme  
00:16:28 11 Court's criteria. And the Carter  
00:16:29 12 Petitioner's choice to build on it  
00:16:31 13 paid off on all of the relevant  
00:16:33 14 criteria, not just on lease change.

00:16:37 15 To explain the Carter  
00:16:38 16 plan in more detail, the Court will  
00:16:40 17 soon hear testimony from Doctor  
00:16:41 18 Jonathan Rodden, a tenured political  
00:16:43 19 science professor at Stanford  
00:16:44 20 University, who drew the Carter plan  
00:16:45 21 and has been qualified as an expert in  
00:16:48 22 many redistricting voting and election  
00:16:51 23 cases. He'll explain his plan, how he  
00:16:54 24 developed it, why he made certain  
00:16:57 25 choices and how his map compares with

00:17:01 1 the others before this Court on a  
00:17:01 2 variety of metrics.

00:17:01 3 Based on all of the  
00:17:02 4 evidence the Carter Petitioners submit  
00:17:03 5 that their plan is the one that best  
00:17:05 6 matches or improves upon the core  
00:17:07 7 approved 2018 plans compliance with  
00:17:12 8 traditional redistricting criteria, as  
00:17:13 9 well as partisan fairness, preserving  
00:17:16 10 communities of interest and retaining  
00:17:18 11 more of that plan than any other  
00:17:19 12 submissions.

00:17:20 13 The Carter Petitioners  
00:17:21 14 respectfully submit that this Court  
00:17:23 15 adopt the Carter plan in full. And as  
00:17:26 16 to the election deadline matter, we  
00:17:29 17 agree that the Court has authority to  
00:17:32 18 move election deadlines but do not  
00:17:34 19 think that that will be necessary.  
00:17:36 20 Thank you.

00:17:37 21 JUDGE McCULLOUGH:  
00:17:37 22 Thank you very much,  
00:17:39 23 Counsel.

24 Okay.

25 So now Counsel for

1       Petitioners Gressman.

2                               ATTORNEY RING-AMUNSON:

3                               Thank you, Your Honor.

4       Good morning, and may it please the  
5       Court. My name is Jessica

00:18:05   6       Ring-Amunson, and I represent the

00:18:07   7       Gressman Math Science Petitioners.

00:18:07   8                               At the outset and on

00:18:09   9       behalf of our clients, I want to thank

00:18:10   10       the Court for the time and attention

00:18:13   11       it is devoting to this most important

00:18:15   12       matter, and also to thank the

00:18:17   13       courtroom staff. I want to thank the

00:18:18   14       Court, in particular, for expediting

00:18:19   15       our petition. And I will say that,

00:18:22   16       although I'm appearing before the

00:18:25   17       Court pro hac vice, as someone who was

00:18:27   18       born and raised in Jenkintown and

00:18:30   19       Montgomery County, I am also very

00:18:30   20       personally grateful to the Court.

00:18:32   21                               At the outset I want to

00:18:35   22       tell you a little bit about our

00:18:37   23       clients. They are 12 professors of

00:18:39   24       mathematics, statistics, geography and

00:18:42   25       data science at some of Pennsylvania's

00:18:44 1 leading colleges and universities.  
00:18:46 2 They include the chairs of the  
00:18:49 3 Mathematic Departments at Saint Joe's,  
00:18:53 4 Lehigh and Lafayette. They have won  
00:18:54 5 numerous honors and recognitions from  
00:18:57 6 organizations, such as the National  
00:18:59 7 Science Foundation, the American  
00:19:02 8 Mathematical Society and the American  
00:19:02 9 Statistical Association.

00:19:04 10 But beyond their  
00:19:05 11 impressive credentials in fields  
00:19:07 12 related to redistricting, they are  
00:19:10 13 also Pennsylvania voters, who care  
00:19:12 14 deeply about ensuring that the  
00:19:15 15 Congressional redistricting process is  
00:19:19 16 fair to all Pennsylvanians.

00:19:19 17 The Gressman Petitioners  
00:19:21 18 are the only parties before this Court  
00:19:23 19 who are not here to advance the agenda  
00:19:26 20 of a particular political party or  
00:19:28 21 incumbent office holder. I personally  
00:19:32 22 do not even know the political  
00:19:34 23 affiliation of my clients. I do know  
00:19:37 24 that they're not here to argue on  
00:19:40 25 behalf of Republicans or Democrats.

00:19:42 1 They're not here to engage in a power  
00:19:45 2 struggle between the legislative  
00:19:48 3 branch and the executive branch.

00:19:51 4 They're not here to advocate for the  
00:19:52 5 interests of either federal or state  
00:19:54 6 incumbent officeholders.

00:19:54 7 They're here for one  
00:20:02 8 reason and one reason only. They want  
00:20:02 9 a map that is fair to all Pennsylvania  
00:20:04 10 voters. And in 2018 the Supreme Court  
00:20:07 11 provided explicit guidance about how  
00:20:10 12 to ensure that a map is fair to  
00:20:13 13 Pennsylvania voters. First the court  
00:20:17 14 said make sure that the map is compact  
00:20:18 15 and contiguous, as nearly equal in  
00:20:20 16 population as practicable and does not  
00:20:21 17 divide any county, city, incorporated  
00:20:26 18 town, borough, township or ward more  
00:20:30 19 than is absolutely necessary to  
00:20:31 20 achieve a quality of population.

00:20:33 21 But the Court was  
00:20:33 22 equally clear that achieving those  
00:20:36 23 neutral criteria was a floor not a  
00:20:39 24 ceiling. Our remedial plan must also  
00:20:43 25 fulfill the overarching objective of

00:20:45 1 the free and equal elections clause,  
00:20:47 2 and that is to ensure that each  
00:20:50 3 person's vote in the selection of  
00:20:51 4 representatives for Congress is  
00:20:53 5 equalized, quote, to the greatest  
00:20:56 6 degree possible with all other  
00:20:59 7 Pennsylvania citizens.

00:21:01 8 The Supreme Court also  
00:21:02 9 explained how one might achieve these  
00:21:04 10 objectives, and specifically the Court  
00:21:07 11 said that advances in technology can  
00:21:09 12 be used to, quote, aid in the  
00:21:11 13 expeditious development of districting  
00:21:14 14 maps, the boundaries of which are  
00:21:15 15 drawn to scrupulously adhere to these  
00:21:19 16 neutral criteria.

00:21:21 17 Along with their  
00:21:22 18 experts, the Gressman Petitioners have  
00:21:25 19 used these advances in technology and  
00:21:27 20 specifically advances in the  
00:21:29 21 relatively new field of computational  
00:21:31 22 redistricting to generate a map that  
00:21:33 23 scrupulously adheres to these neutral  
00:21:36 24 criteria. As we explained in our  
00:21:38 25 brief, computational redistricting

00:21:41 1 works by using algorithms to optimize  
00:21:44 2 compliance with multiple legal  
00:21:49 3 requirements simultaneously.

00:21:49 4 High performance  
00:21:52 5 computers can turn out literally  
00:21:52 6 millions of maps and evaluate how they  
00:21:55 7 perform in seconds to find the ones  
00:21:57 8 that best comply with the neutral  
00:22:02 9 criteria. It allows the exploration  
00:22:02 10 of alternatives and trade offs in ways  
00:22:03 11 that hand drawn maps simply cannot do.  
00:22:05 12 And all of the other maps before the  
00:22:07 13 Court are hand drawn.

00:22:09 14 A comparison to both the  
00:22:12 15 baseline plan and all of the other  
00:22:13 16 parties show our computational  
00:22:13 17 redistricting process was tremendously  
00:22:21 18 successful. Our plan consists of  
00:22:22 19 compact and contiguous territory. The  
00:22:24 20 districts are not only easily visually  
00:22:27 21 compact, nothing like Goofy kicking  
00:22:28 22 Donald Duck here, but also superior or  
00:22:31 23 comparable to all of the other  
00:22:34 24 parties' plans on the various measures  
00:22:36 25 of compactness.

00:22:36 1 To be sure, just as in  
00:22:39 2 League of Women Voters, there are  
00:22:39 3 variations in how the parties measure  
00:22:42 4 compactness, but by any measure, our  
00:22:43 5 plans are compact and contiguous. Our  
00:22:46 6 plan is as nearly equal in population  
00:22:48 7 as possible. There is a one-person  
00:22:50 8 deviation between the largest and  
00:22:52 9 smallest districts, the lowest you can  
00:22:56 10 go. And our plan out performs all of  
00:22:58 11 the other parties' plans on the  
00:22:59 12 requirement not to divide any county  
00:23:01 13 city, town, borough, township or ward  
00:23:04 14 except where absolutely necessary to  
00:23:07 15 achieve a quality of population.

00:23:09 16 Indeed our plan vastly  
00:23:10 17 improves on the performance of even  
00:23:12 18 the 2018 map on this metric whereas  
00:23:15 19 the 2018 map split 72 total political  
00:23:18 20 subdivisions our map divides just 49.  
00:23:23 21 The lowest number of all the parties.  
00:23:26 22 And importantly our plan achieves this  
00:23:28 23 while ensuring that there is no  
00:23:30 24 partisan vote dilution and that all  
00:23:32 25 voters have an equal opportunity to



00:23:34 1 translate their votes into  
00:23:35 2 representation.

00:23:37 3 I recognize there's a  
00:23:39 4 lot of terminology in the briefs about  
00:23:40 5 the various measures of partisan  
00:23:44 6 fairness, mean median and efficiency  
00:23:45 7 gap, and majoritarian outcomes, et  
00:23:48 8 cetera, but they're all getting at the  
00:23:49 9 same thing, that the Supreme Court  
00:23:51 10 opinion, is this plan fair? Will it  
00:23:56 11 allow voters across the state to  
00:23:59 12 translate their votes into  
00:24:00 13 representation, or does the plan  
00:24:02 14 reward a party that does not receive  
00:24:04 15 the majority of votes statewide with a  
00:24:07 16 majority of the Congressional  
00:24:09 17 delegation?

00:24:11 18 Our plan is the most  
00:24:13 19 fair to Pennsylvania voters, but you  
00:24:16 20 don't have to take my word for it.  
00:24:18 21 One of the other parties experts, the  
00:24:22 22 Senate Democrats experts, Doctor  
00:24:25 23 Caughney put in the information about  
00:24:27 24 a publicly available website called  
00:24:29 25 Plan Score. When you put all of the

00:24:30 1 parties plans into Plan Score our map  
00:24:35 2 scores the best as treating  
00:24:36 3 Pennsylvania voters fairly and  
00:24:39 4 symmetrically.

00:24:43 5 Conspicuously, that  
00:24:44 6 expert when he did his analysis ran  
00:24:46 7 all of the other parties plans but not  
00:24:48 8 ours. There's a reason that the other  
00:24:50 9 parties are not talking about our  
00:24:53 10 plan, it beats theirs. That our plan  
00:24:57 11 is best in achieving optimal partisan  
00:24:59 12 fairness should not be surprising,  
00:25:01 13 because our clients are the only  
00:25:03 14 non-partisan party before this Court,  
00:25:05 15 and they care only about ensuring that  
00:25:08 16 the Court adopts a map that's fair to  
00:25:10 17 all Pennsylvanians regardless of their  
00:25:12 18 political affiliation.

00:25:18 19 Ensuring the adoption of  
00:25:19 20 a politically fair and legally  
00:25:19 21 compliant map that scrupulously  
00:25:23 22 adheres to the neutral redistricting  
00:25:24 23 criteria is particularly important,  
00:25:25 24 whereas here the Court is, as the  
00:25:28 25 Supreme Court put it in Mellow, thrust

00:25:30 1 into this role with no other feasible  
00:25:33 2 option except to take one entire plan  
00:25:36 3 or the other. Simply put, our plan is  
00:25:40 4 the Court's best option. If the Court  
00:25:43 5 chooses our plan, the Court doesn't  
00:25:45 6 have to choose between Democrats and  
00:25:47 7 Republicans. The Court doesn't have  
00:25:48 8 to choose between the legislative  
00:25:50 9 branch and the executive branch. The  
00:25:53 10 Court doesn't have to choose between  
00:25:54 11 the House and the Senate. The Court  
00:25:56 12 doesn't have to choose between Federal  
00:25:58 13 and State office holders. Instead,  
00:26:01 14 the Court can simply choose the best  
00:26:04 15 plan. And we respectfully ask that  
00:26:06 16 the Court adopt the Gressman Math  
00:26:09 17 Science Plan to remedy the  
00:26:12 18 malapportionment claims before it.  
00:26:14 19 Thank you.

00:26:14 20 JUDGE McCULLOUGH:

00:26:15 21 Thank you, Counsel.  
00:26:22 22 Counsel now for Acting Secretary ---  
00:26:24 23 or Secretary Chapman.

00:26:37 24 ATTORNEY WIYGUL:

00:26:37 25 Good morning, Your

00:26:38 1 Honor. Robert Wiygul. Just a note of  
00:26:38 2 clarification, I represent, as the  
00:26:41 3 Court is aware, both Respondents, the  
00:26:41 4 Secretary of the Commonwealth and the  
00:26:43 5 Director of Election Services and  
00:26:45 6 Notaries and Intervenor Respondent  
00:26:50 7 Governor Wolf.

00:26:51 8 The Respondents, the  
00:26:51 9 Secretary, the Department of State,  
00:26:54 10 have not proposed a map in this  
00:26:55 11 litigation. The Governor, however,  
00:26:57 12 has. And so if it pleases the Court,  
00:26:59 13 I will now present an opening  
00:27:01 14 statement on behalf of the Governor.

00:27:03 15 JUDGE McCULLOUGH:

00:27:03 16 Okay.

00:27:03 17 So you're not making an  
00:27:05 18 opening on behalf on behalf of  
00:27:07 19 Secretary Chapman.

00:27:07 20 ATTORNEY WIYGUL:

00:27:07 21 That is correct, Your  
00:27:08 22 Honor.

00:27:08 23 JUDGE McCULLOUGH:

00:27:08 24 Okay. You were next  
00:27:08 25 anyway, so you may proceed.

00:27:09 1 ATTORNEY WIYGUL:

00:27:10 2 On one level the

00:27:11 3 redistricting process is a matter of

00:27:13 4 line drawing and division. Thirteen

00:27:16 5 (13) million Pennsylvanians need to be

00:27:18 6 divided up into 17 different

00:27:20 7 districts. But redistricting is also

00:27:22 8 a process in which every ten years we

00:27:24 9 are asked to recommit ourselves to the

00:27:26 10 basic principles of our democracy. As

00:27:29 11 our Supreme Court said in 2018, a

00:27:31 12 healthy representative democracy

00:27:34 13 requires that all voters have an equal

00:27:36 14 opportunity to translate their votes

00:27:38 15 into representation. All too often in

00:27:41 16 Pennsylvania history that requirement

00:27:42 17 has not been met. Instead,

00:27:45 18 Pennsylvanians have voted under a

00:27:47 19 district map that entrenched a

00:27:47 20 structural partisan advantage. Such a

00:27:53 21 map produces the same electoral

00:27:53 22 results despite changes in voter

00:27:53 23 preferences and systematically awards

00:27:58 24 more than 50 percent of the

00:27:59 25 Congressional seats to a party winning

00:28:04 1 less than 50 percent of the votes. As  
00:28:07 2 the Supreme Court has noted, that kind  
00:28:08 3 of biased map leads to a government  
00:28:09 4 that is neither responsive nor  
00:28:12 5 accountable to Pennsylvania voters and  
00:28:14 6 it discourages voters from  
00:28:15 7 participating in elections.

00:28:17 8 In 2018, in a case called  
00:28:18 9 League of Women Voters, the  
00:28:19 10 Pennsylvania Supreme Court struck down  
00:28:20 11 the then existing Congressional map  
00:28:23 12 because it was fundamentally unfair.  
00:28:25 13 Because that map was skewed in favor  
00:28:28 14 of certain political parties, it did  
00:28:30 15 not give all voters an equal  
00:28:33 16 opportunity to translate their votes  
00:28:35 17 into representation and it, therefore,  
00:28:38 18 violated the Pennsylvania  
00:28:39 19 Constitution.

00:28:40 20 As the Court pointed out  
00:28:41 21 at the beginning of this hearing, this  
00:28:42 22 case is different from League of Women  
00:28:45 23 Voters in an important way. In the  
00:28:47 24 League of Women Voters case the  
00:28:49 25 question was whether a map passed by

00:28:50 1 the General Assembly and signed by the  
00:28:52 2 Governor violated the Constitution and  
00:28:53 3 should therefore, be thrown out and  
00:28:55 4 replaced by the Courts. This case  
00:28:57 5 does not ask the Court to decide  
00:29:00 6 whether a given map is  
00:29:02 7 unconstitutional. Here, everyone  
00:29:04 8 agrees that Pennsylvania has to have a  
00:29:06 9 new map and the Court's task is to  
00:29:08 10 determine what map would be best.

00:29:09 11 Ideally, Pennsylvania's  
00:29:12 12 new map would be enacted as a piece of  
00:29:15 13 legislation passed by the General  
00:29:18 14 Assembly and approved by the Governor.  
00:29:19 15 The Governor's role in that process is  
00:29:22 16 an important one because, unlike the  
00:29:24 17 members of the Pennsylvania General  
00:29:25 18 Assembly, the Governor is elected by  
00:29:27 19 all Pennsylvania voters. Governor  
00:29:29 20 Wolf has taken this role seriously.  
00:29:29 21 While waiting for the General Assembly  
00:29:29 22 to present a bill for his review, he  
00:29:34 23 has consistently advocated for a fair  
00:29:36 24 and transparent redistricting process.

00:29:39 25 In September of last year

00:29:40 1 he created the Pennsylvania  
00:29:42 2 Redistricting Advisory Council. The  
00:29:44 3 council, after accepting testimony  
00:29:45 4 from the public, issued a set of  
00:29:47 5 public redistricting principles to  
00:29:50 6 guide the Governor's review of any  
00:29:54 7 map. Moreover, during the General  
00:29:59 8 Assembly's deliberations, the Governor  
00:29:59 9 has provided public feedback on  
00:30:00 10 proposed maps, highlighting examples  
00:30:00 11 that are consistent with the  
00:30:03 12 redistricting principles, free of  
00:30:04 13 unfair partisan advantage and in full  
00:30:06 14 accord with the law.

00:30:08 15 Unfortunately, despite  
00:30:10 16 receiving the new census data in  
00:30:12 17 August 2021, the General Assembly did  
00:30:14 18 not pass any map until this week, just  
00:30:17 19 days before this hearing was scheduled  
00:30:18 20 to begin. Even more unfortunate,  
00:30:22 21 instead of endorsing an even-handed  
00:30:24 22 map commanding bipartisan support, the  
00:30:24 23 General Assembly has rammed through on  
00:30:26 24 party line votes a map that  
00:30:29 25 fundamentally fails the test of



00:30:33 1 fairness and does not comply with the  
00:30:34 2 redistricting principles.

00:30:34 3 As the Governor has  
00:30:35 4 previously made clear, that map is  
00:30:37 5 unacceptable. He could not in good  
00:30:40 6 conscience sign it into law. As a  
00:30:41 7 result, it now falls to the courts to  
00:30:43 8 give Pennsylvanians the fair map they  
00:30:45 9 deserve.

00:30:46 10 The Supreme Court showed  
00:30:48 11 the way in League of Women Voters. It  
00:30:51 12 identified certain neutral benchmarks  
00:30:53 13 that provide a floor of protection  
00:30:54 14 against unfair districting, including  
00:30:56 15 equality of population, contiguity,  
00:31:00 16 compactness and respect for the  
00:31:01 17 boundaries of political subdivisions,  
00:31:03 18 as counsel had previously identified.  
00:31:05 19 But the Court made clear that these  
00:31:07 20 criteria are only a floor. Put  
00:31:11 21 differently, though many plans may  
00:31:12 22 satisfy these criteria, not all are  
00:31:13 23 fair, not all provide a level  
00:31:15 24 political playing field. The  
00:31:17 25 Governor's map does both, as will be

00:31:19 1 shown by the evidence in this hearing,  
00:31:21 2 including, in particular, testimony  
00:31:23 3 from the Governor's expert witness,  
00:31:26 4 Doctor Moon Duchin of Tufts  
00:31:26 5 University, a renown mathematician and  
00:31:30 6 leading redistricting expert. That  
00:31:33 7 evidence will show that the Governor's  
00:31:34 8 map easily satisfies criteria. It  
00:31:37 9 also does an exemplary job of  
00:31:40 10 protecting communities of interest and  
00:31:41 11 protecting the cores of the previous  
00:31:44 12 districts established by the Supreme  
00:31:46 13 Court, which, as Counsel mentioned  
00:31:47 14 earlier, are other factors that our  
00:31:49 15 Supreme Court has considered. But the  
00:31:51 16 Governor's map does not rest on this  
00:31:53 17 floor. It realizes the prediction of  
00:31:55 18 the Supreme Court in League of Women  
00:31:57 19 Voters, which anticipated that  
00:31:59 20 technology and computing power could  
00:32:02 21 make it easier to create fair maps.  
00:32:02 22 Thanks to these tools, it is possible  
00:32:04 23 to achieve fairness, to avoid maps in  
00:32:06 24 which parties winning less than  
00:32:08 25 50 percent of the votes systematically

00:32:11 1 win more than 50 percent of the seats  
00:32:13 2 without sacrificing the benchmark  
00:32:17 3 criteria.

00:32:18 4 The evidence will show  
00:32:19 5 that the Governor's map is among the  
00:32:20 6 best of the maps presented to the  
00:32:21 7 Court at satisfying the traditional  
00:32:25 8 criteria and among that first tier  
00:32:26 9 does the best job of protecting  
00:32:28 10 fairness and ensuring that every  
00:32:30 11 Pennsylvania voter has an equal  
00:32:31 12 opportunity to elect the candidate of  
00:32:36 13 his or her choice.

00:32:37 14 Some of the parties  
00:32:38 15 before the Court, including the House  
00:32:38 16 and Senate Republicans, suggest that  
00:32:41 17 Pennsylvania geography unavoidably  
00:32:44 18 entrenches partisan advantage. The  
00:32:46 19 Governor's map and the evidence to be  
00:32:47 20 presented at this hearing demonstrates  
00:32:48 21 that is wrong. The Commonwealth can  
00:32:50 22 have a map that amply satisfies the  
00:32:54 23 traditional redistricting criteria and  
00:32:57 24 establishes a level political playing  
00:32:59 25 field, safeguarding the basic

00:33:00 1 principles of democracy and ensuring  
00:33:03 2 that elected representatives are  
00:33:03 3 responsive and accountable to the  
00:33:05 4 voters they serve. We respectfully  
00:33:07 5 submit that Pennsylvania voters  
00:33:08 6 deserve no less. Thank you.

00:33:11 7 JUDGE McCULLOUGH:

00:33:11 8 Thank you, Counsel.

00:33:24 9 Next is Counsel for Republican  
10 Legislative Intervenors, Senator  
11 Corman.

12 ATTORNEY TUCKER:

13 Your Honor, if it's  
14 preferable to the Court, Robert Tucker  
15 from BakerHostetler. I represent the  
16 House Republicans that are  
17 Intervenors. I was going to present  
18 first and Mr. Holtzman, on behalf of  
19 the Senate, was going to present after  
20 me if that is okay.

21 JUDGE MCCULLOUGH:

00:33:36 22 That's fine.

00:33:36 23 ATTORNEY TUCKER:

00:33:36 24 Good morning, Your  
00:33:36 25 Honor. And I'd also like to thank the

00:33:36 1 Court for its time, and particularly  
00:33:49 2 the staff for setting everything up  
00:33:49 3 for us this morning.

00:33:52 4 As Your Honor recognized  
00:33:53 5 in her opening remarks, both the  
00:33:55 6 United States and Pennsylvania  
00:33:55 7 Constitutions task the legislature  
00:34:01 8 with redrawing Pennsylvania's  
00:34:02 9 Congressional Districts. This is the  
00:34:05 10 General Assembly's prerogative. Even  
00:34:06 11 with census delays, the General  
00:34:09 12 Assembly has now passed its  
00:34:11 13 congressional redistricting plan,  
00:34:11 14 House Bill 2146, but the Governor has  
00:34:15 15 inexplicably vetoed it. The evidence  
00:34:18 16 that has been submitted to this Court  
00:34:20 17 and that will be further submitted at  
00:34:21 18 this hearing demonstrates  
00:34:23 19 unequivocally that the plan passed by  
00:34:27 20 the General Assembly adheres to  
00:34:30 21 traditional redistricting criteria.

00:34:31 22 Indeed, Carter  
00:34:33 23 Petitioners recognize that in their  
00:34:34 24 opening and many of the experts in  
00:34:35 25 their reports recognize that all of

00:34:36 1 the plans, including HB-2146 adhere to  
00:34:40 2 traditional redistricting criteria.  
00:34:45 3 HB-2146 has at most plus minus one  
00:34:49 4 person population deviation. It is as  
00:34:54 5 compact or close to compact as all of  
00:34:55 6 the other submitted maps as well as  
00:34:55 7 the map adopted by the Supreme Court  
00:34:58 8 in 2018 and it splits nearly the same  
00:35:01 9 number or fewer number of counties,  
00:35:03 10 municipalities and precincts as both  
00:35:06 11 the 2018 map and the other maps  
00:35:08 12 submitted to this court. Indeed, it  
00:35:10 13 actually fits --- splits the fewest  
00:35:13 14 number of precincts of any of the  
00:35:17 15 submitted maps. None of the other  
00:35:19 16 parties can or will dispute these  
00:35:19 17 points during this hearing.

00:35:21 18 Put simply, the General  
00:35:22 19 Assembly's map adheres to traditional  
00:35:25 20 redistricting criteria. Moreover, the  
00:35:27 21 evidence has already been submitted  
00:35:29 22 and that will be submitted during this  
00:35:32 23 hearing reflects that the map passed  
00:35:32 24 by the General Assembly is a fair map  
00:35:34 25 to both political parties.

00:35:35 1 You will hear from the  
00:35:36 2 testimony of Doctor Michael Barber,  
00:35:38 3 who will demonstrate that HB-2146 is  
00:35:42 4 predicted to result in nine Democratic  
00:35:45 5 leaning seats and eight Republican  
00:35:49 6 leaning sets, one more Democratic  
00:35:51 7 leaning seat than the most common  
00:35:52 8 outcome in its 50,000 unbiased maps  
00:35:56 9 using only traditional redistricting  
00:35:59 10 criteria and no partisan data. By any  
00:36:02 11 account that is a fair map. More over  
00:36:04 12 HB-2146 compares five seats  
00:36:10 13 significantly more than many of the  
00:36:13 14 other maps. Now if this --- that the  
00:36:15 15 General Assembly has passed a map  
00:36:17 16 traditional redistricting and is  
00:36:19 17 generally fair that is where this  
00:36:20 18 Court searches for a map should end.  
00:36:23 19 HB-2146 now passed by the full General  
00:36:27 20 Assembly is the only plan that has  
00:36:29 21 undergone a full transparency and  
00:36:36 22 deliberative legislative process.  
00:36:37 23 This is a map that was initially drawn  
00:36:38 24 by a citizen, was then selected by the  
00:36:40 25 Pennsylvania House of Representatives

00:36:42 1 as a map that followed traditional  
00:36:44 2 redistricting criteria, passed with  
00:36:47 3 few changes and then after  
00:36:49 4 deliberations in the Senate passed  
00:36:51 5 unchanged. And the changes that were  
00:36:53 6 made in the House were based upon  
00:36:55 7 public input received during this open  
00:36:58 8 and transparent process.

00:36:59 9 This is still intended to  
00:37:00 10 be a political process and one that  
00:37:02 11 the Court should only intrude into if  
00:37:06 12 necessary to prevent a trampling of  
00:37:06 13 constitutional rights or where, as  
00:37:06 14 here, it is forced to, because of an  
00:37:06 15 impasse resulting from Governor's  
00:37:13 16 inexplicable and outright refusal to  
00:37:14 17 sign a fair map.

00:37:15 18 There will be no  
00:37:16 19 demonstration that the map passed by  
00:37:18 20 the General Assembly does not pass  
00:37:20 21 constitutional muster. Rather, as  
00:37:22 22 you've already heard this morning,  
00:37:23 23 Your Honor, the other parties will  
00:37:25 24 simply submit our map is better. This  
00:37:27 25 Court need not and should not turn



00:37:30 1 this into a beauty contest of  
00:37:32 2 selecting the, quote, unquote,  
00:37:34 3 prettiest map. Rather, this Court  
00:37:37 4 should defer to the General Assembly  
00:37:38 5 in determining the policy choices  
00:37:40 6 necessarily involved in the drawing of  
00:37:42 7 Congressional districting lines  
00:37:45 8 regardless of any veto by the  
00:37:45 9 Governor. This Court should not allow  
00:37:51 10 one person to hold hostage a fair plan  
00:37:52 11 passed by the elected Representatives  
00:37:54 12 and Senators of the people of  
00:37:55 13 Pennsylvania.

00:37:56 14 The United States Supreme  
00:37:58 15 Court determined that it did not want  
00:37:59 16 to wade into the political thicket of  
00:38:02 17 restricting, and for good reason. The  
00:38:02 18 next two days are going to demonstrate  
00:38:07 19 why. The Court is going to see a  
00:38:10 20 parade of political scientists and  
00:38:11 21 mathematicians all opining that they  
00:38:13 22 have the best way of drawing a fair  
00:38:15 23 map. They each have the best super  
00:38:15 24 computer. They have the best  
00:38:18 25 algorithm of determining out what's a

00:38:18 1 fair map. But that is not what this  
00:38:20 2 process is supposed to be about. Fair  
00:38:23 3 is in the eye of the beholder and  
00:38:26 4 determined on how you define fair.  
00:38:28 5 There are more ways to draw a  
00:38:30 6 Congressional district map in  
00:38:31 7 Pennsylvania than there are atoms in  
00:38:33 8 the universe. There is no good way to  
00:38:36 9 pick the best map because there is no  
00:38:37 10 best map.

00:38:40 11 Inevitably, some counties  
00:38:42 12 and municipalities have to be divided  
00:38:45 13 and the decisions on which political  
00:38:47 14 subdivisions are split are at the  
00:38:47 15 behest of the map drawer. One map  
00:38:50 16 might be favorable to a particular  
00:38:51 17 group of citizens while splitting a  
00:38:53 18 different community of interest. That  
00:38:55 19 is why these are policy choices  
00:38:58 20 delegated to the Representatives and  
00:39:01 21 Senators elected by the people of  
00:39:03 22 Pennsylvania.

00:39:03 23 Again, what is fair?  
00:39:04 24 I'll refer to a recent Decision from  
00:39:07 25 the Wisconsin Supreme Court, Your

00:39:11 1 Honor, that struggled with this exact  
00:39:11 2 problem when they found what  
00:39:13 3 constitutes a fair map poses an  
00:39:14 4 entirely subjective question with no  
00:39:16 5 governing standards grounded in law.  
00:39:19 6 Deciding among different versions of  
00:39:20 7 fairness poses basic questions that  
00:39:22 8 are political, not legal.

00:39:24 9 Some parties will argue  
00:39:26 10 that strict adherence to traditional  
00:39:27 11 redistricting principles is unfair to  
00:39:29 12 Democrats because their supporters are  
00:39:32 13 more densely concentrated in cities  
00:39:35 14 and have urged the Court to adopt  
00:39:35 15 plans that negate that advantage and  
00:39:38 16 to seek instead a map that yields  
00:39:39 17 proportional representation. This  
00:39:40 18 argument unmaskes their partisan  
00:39:40 19 motivations and their pleas for  
00:39:40 20 partisan favoritism should be soundly  
00:39:50 21 rejected because drawing lines  
00:39:51 22 expressly for political gain is, by  
00:39:56 23 definition, gerrymandering.  
00:39:57 24 Regardless, the maps submitted by the  
00:39:57 25 Petitioners, the Governor and the

00:40:00 1 Democratic caucuses go well past  
00:40:01 2 correcting this disadvantage and are  
00:40:03 3 all predicted, as Doctor Barber will  
00:40:05 4 testify, to result in ten Democratic  
00:40:09 5 leaning seats and seven Republican  
00:40:10 6 leaning seats. That isn't  
00:40:12 7 proportional in any way and goes way  
00:40:14 8 correcting any potential geographic  
00:40:18 9 disadvantage. Make no mistake, those  
00:40:18 10 are gerrymanderers in favor of  
00:40:18 11 Democrats.

00:40:21 12 Nothing in the  
00:40:22 13 Pennsylvania Constitution requires  
00:40:24 14 correction of the effects of the  
00:40:26 15 clustering of Democratic voters in  
00:40:26 16 dense areas or to create a map that  
00:40:28 17 proportionally represents the  
00:40:30 18 statewide two party vote chair.

00:40:33 19 Indeed, the Wisconsin  
00:40:37 20 Supreme Court again recently rejected  
00:40:37 21 that notion in selecting a plan to  
00:40:40 22 remedy a malapportionment claim when  
00:40:41 23 the Governor and legislature could not  
00:40:43 24 agree. Rather, these are choices that  
00:40:46 25 should be made by the General

00:40:48 1 Assembly, not by groups of  
00:40:49 2 mathematicians or by scientists using  
00:40:52 3 backroom computers to draw optimized  
00:40:54 4 maps and not by this Court.

00:40:56 5 Moreover, this is not  
00:40:57 6 just about preserving the cores of  
00:40:59 7 districts either. If that was true,  
00:41:03 8 then we wouldn't be going from what's  
9 been a 9/9 map and losing a seat to a  
10 10/7 map. The General Assembly has  
11 passed a map that adheres to  
12 traditional redistricting principles  
13 and that is demonstrably fair. That  
00:41:18 14 is where this inquiry should end and  
00:41:18 15 this Court should select HB-2214 as  
00:41:22 16 the appropriate plan. Thank you very  
00:41:23 17 much, Your Honor.

00:41:23 18 JUDGE McCULLOUGH:

00:41:23 19 Thank you, Counsel. So  
00:41:24 20 now we will proceed with counsel for  
00:41:32 21 Senators Corman and Warren.

00:41:32 22 ATTORNEY HOLTZMAN:

00:41:32 23 That's right, Your  
00:41:33 24 Honor. Thank you very much and thanks  
00:41:33 25 for indulging our switching order

00:41:34 1 there, I appreciate that. Good  
00:41:35 2 morning. May it please the Court, my  
00:41:36 3 name is Anthony Holtzman, and I  
4 represent Senator Jake Corman, the  
5 President Pro Tempore of the  
6 Pennsylvania Senate, along with  
7 Senator Kim Ward, the majority leader  
8 of the Pennsylvania Senate.

00:41:47 9 Your Honor, during this  
00:41:48 10 hearing you're going to hear a lot of  
00:41:50 11 technical and complex testimony,  
00:41:51 12 testimony from political scientists  
00:41:55 13 and mathematicians and testimony about  
00:41:57 14 algorithms and various formulas and  
00:41:59 15 analytics that can be used to evaluate  
00:42:01 16 redistricting plans in differing ways.

00:42:03 17 You couldn't blame  
00:42:05 18 someone for thinking that this case  
00:42:07 19 must be an extremely difficult one.  
00:42:09 20 But in our view, Your Honor, this case  
00:42:10 21 is not a particularly difficult one.  
00:42:11 22 The solution to the issue at hand is  
00:42:14 23 straightforward and arises out of the  
00:42:16 24 foundational and fundamental  
00:42:19 25 constitution principles that are found

00:42:21 1 at the very heart of this case.

00:42:22 2 In this regard, Your  
00:42:23 3 Honor, the United States and  
00:42:24 4 Pennsylvania Constitutions have  
00:42:26 5 assigned the task of redistricting the  
00:42:29 6 Commonwealth's congressional districts  
00:42:31 7 to the Pennsylvania General Assembly.  
00:42:33 8 This task, in other words, is  
00:42:35 9 expressly and constitutionally  
00:42:35 10 committed to the people's elected  
00:42:40 11 representatives and it's a  
00:42:40 12 fundamentally legislative task.

00:42:44 13 At times, such as when  
00:42:46 14 there's an impasse situation like the  
00:42:48 15 one at hand, a Court may be left with  
00:42:48 16 what the U.S. Supreme Court has  
00:42:51 17 described as, quote, the unwelcome  
00:42:52 18 obligation of performing in the  
00:42:54 19 legislature stead, closed quote. When  
00:42:54 20 these situations arise, however, it  
00:43:01 21 does not mean that congressional  
00:43:01 22 redistricting is no longer a  
00:43:03 23 fundamentally legislative endeavor.  
00:43:07 24 It does not mean that the task of  
00:43:08 25 redistricting should suddenly be

00:43:08 1 viewed as nothing more than a  
00:43:08 2 high-stakes cartography competition to  
00:43:14 3 see which of various super computers,  
00:43:15 4 mathematicians and academics can outdo  
00:43:18 5 the others when it comes to drawing  
00:43:19 6 maps in relation to various scientific  
00:43:24 7 metrics that are nowhere to be found  
00:43:28 8 in the law.

00:43:28 9 This point is especially  
00:43:29 10 pronounced in this case, Your Honor.  
00:43:29 11 Here, House Bill 2146 embodies a  
00:43:34 12 congressional redistricting plan that  
00:43:34 13 both the Senate and the House have  
00:43:37 14 thoughtfully considered and passed.  
00:43:39 15 In light of this factor, the HB-2146  
00:43:41 16 plan, as a plan that the people's  
00:43:43 17 representatives have approved, should  
00:43:44 18 be given special weight, consideration  
00:43:46 19 or deference so long as it meets the  
00:43:50 20 applicable redistricting requirements.  
00:43:51 21 And it plainly does so.

00:43:52 22 In this regard, Your  
00:43:53 23 Honor, as Mr. Tucker just ably  
00:43:56 24 explained and is explained in the  
00:43:57 25 Senate and House Republican



00:43:59 1 Intervenor's briefs and as the  
00:43:59 2 evidence in this hearing will show,  
00:44:01 3 the HB-2146 plan does, in fact, meet  
00:44:05 4 all the applicable requirements,  
00:44:07 5 including requirements regarding  
00:44:08 6 compact and contiguous territory,  
00:44:11 7 population equality and respect for  
00:44:14 8 the boundaries of political  
00:44:14 9 subdivisions. And what the evidence  
00:44:16 10 will not show is that the HB-2146 plan  
00:44:20 11 is otherwise unlawful or unfair in  
00:44:22 12 some other way.

00:44:24 13 What's more, Your Honor,  
00:44:24 14 no other party or Amici has presented  
00:44:27 15 this Court with a proposed  
00:44:29 16 redistricting plan that has made its  
00:44:31 17 way through any part of any  
00:44:32 18 legislative process, let alone a plan  
00:44:35 19 that both the Senate and House of  
00:44:37 20 Pennsylvania have passed. Unlike the  
00:44:40 21 other proposed plans, therefore, the  
00:44:40 22 HB-2146 plan is entitled to deference  
00:44:40 23 and special weight in recognition of  
00:44:40 24 the General Assembly's constitutional  
00:44:47 25 prerogative to engage in

00:44:48 1 redistricting. Indeed, the HB-2146  
00:44:51 2 plan reflects a deliberative, open,  
00:44:55 3 legislative process which involved  
00:44:58 4 negotiations, compromise and policy  
00:45:00 5 judgments in which the people's  
00:45:03 6 elective representatives undertook in  
00:45:03 7 order to memorialize and implement  
00:45:05 8 state policy that reflects the will of  
00:45:08 9 their constituents.

00:45:08 10 The Constitution does not  
00:45:10 11 envision that a supercomputer or an  
00:45:13 12 individual expert witness will create  
00:45:14 13 a redistricting map that will govern  
00:45:17 14 congressional elections for a decade,  
00:45:17 15 no matter how technical or how complex  
00:45:21 16 that computer's or expert's analysis  
00:45:25 17 might be. Therefore, as I said, Your  
00:45:25 18 Honor, the issue before the Court is  
00:45:27 19 not a particularly difficult one in  
00:45:28 20 our view. The answer is rooted in the  
00:45:31 21 foundational and constitutional  
00:45:31 22 principles that undergird this case.  
00:45:33 23 As a legislatively approved plan that  
00:45:36 24 meets all of the applicable  
00:45:37 25 redistricting criteria, the HB-2146

00:45:41 1 map is entitled to deference from the  
00:45:41 2 Court in order to honor the General  
00:45:44 3 Assembly's constitutional prerogative  
00:45:44 4 to engage in redistricting. And in  
00:45:52 5 our view, it's as simple as that.  
00:45:52 6 Thank you, Your Honor.

00:45:53 7 JUDGE McCULLOUGH:

00:45:53 8 Thank you very much,  
00:45:55 9 Counsel. And the next party will be  
00:45:55 10 Counsel for Representative  
00:46:02 11 Reschenthaler, et al.

00:46:02 12 ATTORNEY VOSS:

00:46:05 13 Thank you, Your Honor.  
00:46:07 14 May it please the Court, my name is  
00:46:07 15 Joshua Voss from the Kleinbard firm.  
00:46:11 16 And our team is happy to represent the  
00:46:13 17 congressional delegation here today  
00:46:14 18 and we appreciate your accommodation  
00:46:16 19 of this schedule.

00:46:18 20 When I think about this  
00:46:19 21 case I think about it like a contest.  
00:46:22 22 And with most contests there's usually  
00:46:25 23 a minimal barrier to entry, an entry  
00:46:28 24 fee, perhaps success at a preliminary  
00:46:31 25 competition, but just not everybody

00:46:32 1 gets in. So the entry fee in this  
00:46:35 2 case, so to speak, is the standard set  
00:46:39 3 forth by the Pennsylvania Supreme  
00:46:41 4 Court, in League of Women Voters,  
00:46:43 5 compact, contiguous in minimizing  
00:46:47 6 splits.

00:46:47 7 What we will submit to  
00:46:48 8 the Court and what we started to  
00:46:49 9 submit to the Court yesterday in our  
00:46:50 10 response brief is most of the maps,  
00:46:53 11 and indeed we think all of the maps,  
00:46:56 12 save ours, haven't paid the entry fee  
00:46:58 13 for a variety of reasons. But chief  
00:47:01 14 among them is our Constitution has  
00:47:03 15 some very specific adjectives in it.  
00:47:06 16 Absolutely necessary, when we talk  
00:47:09 17 about splits in our Constitution we  
00:47:11 18 say absolutely necessary. And that's  
00:47:13 19 an important consideration in this  
00:47:14 20 proceeding, which we'll develop as we  
00:47:17 21 go along.

00:47:19 22 The second piece here is,  
00:47:21 23 responding to your opening statement,  
00:47:22 24 you said this case talks about the  
00:47:24 25 constitutional rights of the people.

00:47:28 1 We agree. And as you learned this  
00:47:30 2 morning, our expert is perhaps one off  
00:47:30 3 from what everyone else is doing. He  
00:47:37 4 doesn't own a supercomputer. He can't  
00:47:38 5 spit out more maps than atoms in a  
00:47:38 6 moment's notice. But what we have  
00:47:45 7 endeavored to do with Doctor Keith  
00:47:45 8 Naughton is bring the people into this  
00:47:47 9 proceeding.

00:47:48 10 Now, Doctor Naughton  
00:47:48 11 certainly doesn't know every  
00:47:50 12 Pennsylvanian, but he has run  
00:47:51 13 campaigns in every county in this  
00:47:54 14 state, countywide, districtwide,  
00:47:57 15 statewide. And he's learned a little  
00:48:01 16 bit about the people of this state,  
00:48:03 17 how they live, work and vote. And  
00:48:04 18 through that testimony we intend to  
00:48:06 19 show the Court how our two proposed  
00:48:08 20 maps most respect the communities of  
00:48:12 21 interest or really just the people of  
00:48:14 22 the state. And we hope to bring the  
00:48:15 23 people into this proceeding through  
00:48:17 24 Doctor Naughton's testimony to further  
00:48:19 25 underscore why our maps are, indeed,

00:48:22 1 the only maps that could be selected  
00:48:24 2 here.

00:48:24 3 The final piece that  
00:48:26 4 we'll hear perhaps at the end is the  
00:48:28 5 bit about the schedule. As we have  
00:48:31 6 set forth in our opening brief at page  
00:48:36 7 43, you have until February 22 to get  
00:48:38 8 a map in place, you being the court  
00:48:39 9 system collectively, but certainly  
00:48:40 10 this Court with the first bite of the  
00:48:42 11 apple with the original jurisdiction.  
00:48:45 12 There is time here. And you don't  
00:48:46 13 have to take my word for it. Take the  
00:48:46 14 Secretary of State's word for it from  
00:48:50 15 League of Women Voters. And we've  
00:48:50 16 certainly supported that position  
00:48:52 17 where the Secretary was amenable to  
00:48:54 18 moving and modifying the petition  
00:48:58 19 circulation schedule. And we want to  
00:48:59 20 make sure that issue is front and  
00:49:02 21 center for the Court, that there is  
00:49:03 22 some time here to get this right. And  
00:49:05 23 we certainly want that to happen.

00:49:06 24 But in the end we will  
00:49:07 25 urge this Court to adopt one of the

00:49:09 1 two Reschenthaler maps, as we're  
00:49:12 2 calling them, because we believe they  
00:49:13 3 are the only ones that satisfy the  
00:49:17 4 barrier to entry, the admission fee,  
00:49:19 5 so to speak, to have a map adopted for  
00:49:23 6 the state. Thank you, Your Honor.

00:49:24 7 JUDGE McCULLOUGH:

00:49:25 8 Okay. Thank you very  
00:49:26 9 much, Counsel. Next is counsel for  
00:49:51 10 Representative McClinton.

00:49:51 11 ATTORNEY SENOFF:

00:49:51 12 Thank you, Your Honor.

00:49:53 13 Good morning. May it please the  
00:49:53 14 Court, David Senoff on behalf of the  
00:49:53 15 Intervenor Representative McClinton  
00:49:53 16 and the --- as the leader of the House  
00:49:53 17 --- Pennsylvania House of  
00:50:05 18 Representatives Democratic Caucus.

00:50:06 19 We also would like to  
00:50:08 20 thank Your Honor for the time and care  
00:50:10 21 with which this Court has handled this  
00:50:13 22 case, as well as thanking the staff  
00:50:16 23 for making this go off so far  
00:50:23 24 flawlessly.

00:50:23 25 Preliminarily, however,

00:50:24 1 we would like to note for the record  
00:50:26 2 an objection to this Court's subject  
00:50:28 3 matter jurisdiction over the creation  
00:50:31 4 of a remedy. This issue was raised in  
00:50:35 5 the trial brief we filed earlier  
00:50:37 6 today. And I don't want to dwell on  
00:50:40 7 it other than to note it for the  
00:50:42 8 record and suggest that the reasons  
00:50:49 9 for that are set forth clearly in  
00:50:51 10 there.

00:50:51 11 We believe that this  
00:50:53 12 Court certainly has the power to find  
00:50:57 13 facts, similarly has the power to take  
00:50:58 14 evidence and also has the power to  
00:51:00 15 issue a recommendation to the Supreme  
00:51:03 16 Court based on those facts and its  
00:51:04 17 Conclusions of Law about what the  
00:51:07 18 appropriate remedy should be.

00:51:12 19 However, we do not  
00:51:13 20 believe that this Court has the power  
00:51:15 21 to enact by virtue of an Order or  
00:51:20 22 Final Judgment any particular map  
00:51:21 23 because that power is saved to the  
00:51:24 24 Pennsylvania Supreme Court under our  
00:51:30 25 unified judicial system.



00:51:30 1 With that said, I want to  
00:51:33 2 talk briefly about the maps that have  
00:51:38 3 been submitted. First of all, we do  
00:51:40 4 not believe and we believe the United  
00:51:44 5 States Supreme Court has made clear  
00:51:46 6 that the legislature's map, however  
00:51:50 7 that map --- however one wants to  
00:51:53 8 refer to that, either as the now  
00:52:00 9 vetoed House Bill 2146 or the  
00:52:02 10 Republican Legislative Map, is not  
00:52:02 11 entitled to deference based upon the  
00:52:04 12 United States Supreme Court's Decision  
00:52:07 13 in the Arizona State Legislature  
00:52:09 14 versus Arizona Independent  
00:52:12 15 Redistricting Commission case. In  
00:52:14 16 that case, the Supreme Court looked at  
00:52:17 17 the elections clause of the United  
00:52:22 18 States Constitution and it found,  
00:52:25 19 quite simply, that the use of the  
00:52:27 20 phrase the legislature thereof simply  
00:52:32 21 means the State's normal legislative  
00:52:35 22 processes. And Pennsylvania, by  
00:52:41 23 Constitution, particularly in Articles  
00:52:46 24 3 and 4, it provides the mechanism for  
00:52:47 25 which any bill can become a law. It

00:52:50 1 must pass by a simple majority both  
00:52:50 2 houses separately and then the  
00:52:57 3 Governor must sign it. If the  
00:52:58 4 Governor refuses to sign or approve  
00:53:01 5 the law, the bill, then the bill is  
00:53:04 6 vetoed, the bill is returned to both  
00:53:08 7 houses for reconsideration. Both  
00:53:11 8 houses have the opportunity to vote.  
00:53:14 9 And if there is a vote by a two-thirds  
00:53:16 10 majority, then the Governor's veto is  
00:53:24 11 overridden.

00:53:25 12 That has not happened in  
00:53:25 13 this case. And based upon the League  
00:53:30 14 of Women Voters case, the courts are  
00:53:31 15 forced to step in. And in this case,  
00:53:35 16 based on those League of Women Voters  
00:53:40 17 decision, the Mellow Decision, other  
00:53:43 18 decisions analogous to this related to  
00:53:48 19 the State redistricting process, we  
00:53:53 20 believe that this Court is going to  
00:53:54 21 find variations in the maps, but only  
00:53:57 22 subtle variations in the maps, which  
00:54:00 23 will make it difficult to simply  
00:54:05 24 decide this based on whether one map  
00:54:09 25 or another map is superior simply

00:54:15 1 based on the metrics set forth in  
00:54:18 2 League of Women Voters.

00:54:21 3 In attempting to resolve  
00:54:23 4 that question, in looking at League of  
00:54:27 5 Women Voters and in Mellow the goal  
00:54:30 6 --- the overarching goal, as everyone  
00:54:33 7 here has said, is fairness. But in  
00:54:36 8 ensuring fairness, the courts also  
00:54:39 9 have to ensure that the people are not  
00:54:45 10 disenfranchised, that people's votes  
00:54:46 11 are not diluted and that when we say  
00:54:53 12 fair and equal, we mean fair and  
00:54:58 13 equal. One person, one vote.  
00:55:03 14 Nobody's vote weighs more than than  
00:55:11 15 another.

00:55:12 16 And so we submit that  
00:55:13 17 when you look at the maps and the  
00:55:14 18 relatively subtle differences between  
00:55:17 19 the maps, that one ought to consider  
00:55:19 20 historically what has happened with  
00:55:22 21 these maps between 2011 and the  
00:55:27 22 present as well as the voter  
00:55:32 23 composition and registration in the  
00:55:36 24 state.

00:55:37 25 For example, in 2011 the

00:55:39 1 Democrats enjoyed a 1.1 million voter  
00:55:45 2 advantage over Republicans, and yet  
00:55:47 3 that map produced 15 Republican  
00:55:59 4 Congress people and three Democrats.  
00:55:59 5 In 2018, after the map had been  
00:56:01 6 redrawn, there were 840,000 additional  
00:56:04 7 Democrats registered to vote in the  
00:56:06 8 Commonwealth, and that map produced  
00:56:08 9 nine Republicans and nine Democrats.  
00:56:10 10 And so now, in fact on Monday I  
00:56:15 11 checked the Department of State's  
00:56:16 12 website and the Democratic voter  
00:56:21 13 advantage is significantly down, but  
00:56:24 14 down --- but nonetheless, an advantage  
00:56:27 15 of approximately 540,000 voters.

00:56:30 16 So our point to the Court  
00:56:32 17 is that if an 840,000 vote majority by  
00:56:39 18 Democrats or registration advantage by  
00:56:44 19 Democrats yields a 9/9 result, then a  
00:56:48 20 540,000 vote registration advantage  
00:56:52 21 should not yield substantially more  
00:56:56 22 than 50/50, recognizing the fact that  
00:56:59 23 because we have an odd number of  
00:57:04 24 Representatives now apportioned to the  
00:57:05 25 Commonwealth, that it's impossible to

00:57:09 1 have an even split. However, in order  
00:57:11 2 to avoid such a disenfranchisement and  
00:57:22 3 the dilution of individuals' votes, we  
00:57:22 4 submit that a plan as close to 50/50  
00:57:25 5 as possible would be the appropriate  
00:57:28 6 plan and that any plan which would  
00:57:32 7 increase the Republican --- which  
00:57:40 8 would substantially increase the  
00:57:44 9 Republican representation in Congress  
00:57:48 10 above that 50/50 level would be, per  
00:57:53 11 se, dilution of the votes and  
00:58:00 12 disenfranchising some of the voters in  
00:58:00 13 the Commonwealth. Thank you, Your  
00:58:02 14 Honor.

00:58:02 15 JUDGE McCULLOUGH:

00:58:02 16 Thank you very much,  
00:58:02 17 Counsel.

00:58:10 18 Now we have counsel for  
00:58:11 19 Senator Jay Costa, et al.

00:58:25 20 ATTORNEY ATTISANO:

00:58:25 21 Good morning, Your  
00:58:26 22 Honor, and may it please the Court,  
00:58:29 23 Marco Attisano on behalf of the  
00:58:29 24 Senate Democratic Caucus.

00:58:31 25 Your Honor, the law has

00:58:32 1 been covered by many of the other  
00:58:34 2 speakers here this morning. You have  
00:58:36 3 received introductions related to  
00:58:46 4 other maps that have been proposed to  
00:58:46 5 this Court. What I would like to draw  
00:58:47 6 the Court's attention to today is  
00:58:49 7 that, with respect to the map put  
00:58:51 8 forward by the Republican legislators,  
00:58:58 9 they're asking you to do more than  
00:59:00 10 simply pick a map in that instance.  
00:59:00 11 They're asking you to promote the  
00:59:05 12 legislature over the executive branch  
00:59:07 13 in the normal legislative process.  
00:59:11 14 The map put forward by the Republican  
00:59:16 15 legislators failed the Democratic  
00:59:19 16 process. And for this Court to  
00:59:23 17 promote that map and select that map  
00:59:26 18 after it failed the Democratic process  
00:59:27 19 would create an incentive going  
00:59:29 20 forward that when there is split  
00:59:31 21 government between the legislative  
00:59:33 22 branch and the executive branch, there  
00:59:35 23 would be an incentive in order to have  
00:59:41 24 the legislative branch pass a map  
00:59:43 25 without finding a way to enact the map

00:59:47 1 that is acceptable to the opposing  
00:59:50 2 party in the executive branch.

00:59:54 3 It would be incentivized  
00:59:54 4 to do that because they would know  
00:59:58 5 that they could then go to the  
00:59:59 6 judicial branch and receive some kind  
01:00:02 7 of special deference or special  
01:00:03 8 consideration. And that's something  
01:00:05 9 that would affect Republican  
01:00:12 10 legislators in the future and  
01:00:12 11 Democratic majorities in the  
01:00:12 12 legislature in the future. And that  
01:00:15 13 would be something that is different  
01:00:16 14 than we have right now under the law  
01:00:17 15 in Pennsylvania. And so by being  
01:00:19 16 asked to select that map, this Court  
01:00:22 17 isn't only being asked to pick a map.  
01:00:24 18 It is being asked to do something much  
01:00:26 19 more than simply pick a map.

01:00:32 20 Your Honor, I would like  
01:00:33 21 to just note for the record that the  
01:00:35 22 Senate Democratic Caucus joins in the  
01:00:37 23 objection that the House Democratic  
01:00:40 24 Speaker just made related to the  
01:00:43 25 subject matter jurisdiction today.

01:00:46 1 And Your Honor, moving on  
01:00:48 2 specifically to the maps put forward  
01:00:51 3 by the Senate Democratic Caucus, I  
01:00:54 4 would just like to point out for this  
01:00:56 5 Court's consideration that both of the  
01:00:58 6 maps put forward by the Senate  
01:01:01 7 Democratic Caucus, they minimize the  
01:01:04 8 vote dilution, which will be further  
01:01:12 9 explained by our expert. And they  
01:01:15 10 also comply with the VRA by creating  
01:01:16 11 an appropriate number of  
01:01:18 12 minority/majority districts and  
01:01:20 13 additionally creating coalition  
01:01:23 14 districts where possible. And so I  
01:01:25 15 would just ask that the Court take  
01:01:27 16 those things into consideration  
01:01:29 17 whenever determining the differences  
01:01:31 18 between maps that are put forward  
01:01:33 19 before the Court.

01:01:48 20 And, Your Honor, one more  
01:01:50 21 point with respect to the League of  
01:01:53 22 Women Voters traditional redistricting  
01:01:53 23 factors that have been discussed  
01:01:55 24 today. The case was very clear and I  
01:01:57 25 think some other speakers touched on



01:01:59 1 it as well that simply because a map  
01:02:02 2 meets the traditional redistricting  
01:02:04 3 factors, the analysis does not stop  
01:02:06 4 there, and that the traditional  
01:02:08 5 redistricting factors can be met and a  
01:02:11 6 map can still be unconstitutional for  
01:02:15 7 both dilution.

01:02:16 8 And with that, Your  
01:02:17 9 Honor, I'll conclude my opening to the  
01:02:21 10 Court. Thank you.

01:02:21 11 JUDGE McCULLOUGH:  
01:02:22 12 Okay. Thank you very  
01:02:24 13 much, Counsel.

01:02:24 14 If I'm not mistaken,  
01:02:30 15 that is the end of the opening  
01:02:33 16 statements/arguments. So we will move  
01:02:37 17 now to the first witness to be called  
01:02:47 18 by the Petitioners Carter, et al.

01:03:24 19 ATTORNEY JASRASARIA:  
01:03:24 20 Your Honor, the  
01:03:26 21 Petitioner calls Doctor Jonathan  
01:03:49 22 Rodden.

01:04:28 23 COURT CRIER TURNER:  
01:04:29 24 Raise your right hand.

01:04:30 25 ---

1 JONATHAN RODDEN,  
2 CALLED AS A WITNESS IN THE FOLLOWING  
3 PROCEEDINGS, HAVING FIRST BEEN DULY  
4 SWORN, TESTIFIED AND SAID AS FOLLOWS:

5 ---

6 DIRECT EXAMINATION

7 ---

01:04:31 8 BY ATTORNEY JASRASARIA:

01:04:31 9 Q. Good morning, Doctor Rodden.

01:04:31 10 Could you please state your name for  
01:04:33 11 the record?

01:04:33 12 A. Good morning. My name is  
01:04:34 13 Jonathan Rodden.

01:04:35 14 Q. And what is your current  
01:04:36 15 employment?

01:04:37 16 A. I'm a professor of political  
01:04:37 17 science at Stanford University.

01:04:39 18 JUDGE McCULLOUGH:

01:04:39 19 Sir, you can --- since  
01:04:40 20 you already have a Plexiglass in front  
01:04:42 21 of you, you can remove ---.

01:04:42 22 THE WITNESS:

01:04:43 23 I was hoping you would  
01:04:44 24 say that. Thank you.

01:04:45 25 JUDGE McCULLOUGH:

01:04:45 1 Yes, I know it's very  
01:04:46 2 difficult to testify with that.  
01:04:46 3 Go ahead.  
01:04:50 4 BY ATTORNEY JASRASARIA:  
01:04:50 5 Q. What does your current research  
01:04:55 6 focus on?  
01:04:58 7 A. I work on --- redistricting is  
01:05:01 8 one of the most important issues I  
01:05:03 9 work on, but a broader set of issues  
01:05:05 10 related to political geography,  
01:05:08 11 economic geography, I do a lot of work  
01:05:11 12 of spatial data of various kinds and  
01:05:14 13 census data and political data of all  
01:05:17 14 kinds in the United States and other  
01:05:18 15 countries.  
01:05:22 16 Q. Did you write a report  
01:05:24 17 documenting your methodology opinion  
01:05:26 18 and all the facts that you relied on  
01:05:28 19 in this case?  
01:05:28 20 A. Yes, I did.  
01:05:33 21 ATTORNEY JASRASARIA:  
01:05:35 22 Your Honor, permission  
01:05:35 23 to approach the witness with a copy of  
01:05:38 24 his report.  
01:05:38 25 JUDGE McCULLOUGH:

01:05:39 1 You may, yes.

01:05:39 2 Is there an opening in  
01:05:39 3 that screen or on the side? That's  
01:05:39 4 all right, I think it can --- Mr.  
01:05:39 5 Turner will take it over for you.

01:06:11 6 BY ATTORNEY JASRASARIA:

01:06:11 7 Q. Doctor Rodden, are those the  
01:06:16 8 reports that you authored?

01:06:17 9 A. Yes.

01:06:17 10 Q. Can you briefly summarize what  
01:06:20 11 the Carter Petitioners have asked you  
01:06:21 12 to do in this case?

01:06:22 13 A. I was asked to draw a  
01:06:23 14 redistricting plan for the  
01:06:25 15 Congressional Districts of the State  
01:06:26 16 of Pennsylvania, focusing on  
01:06:27 17 traditional redistricting criteria but  
01:06:29 18 using the existing court ordered plan  
01:06:34 19 from four years ago as a starting  
01:06:36 20 point and trying to stay as close as  
01:06:38 21 possible to that plan while, where  
01:06:40 22 possible, improving on the traditional  
01:06:42 23 redistricting criteria.

01:06:45 24 Q. Broadly, were you able to  
01:06:47 25 accomplish this task?

01:06:48 1 A. Yes.

01:06:50 2 Q. What was the most significant  
01:06:52 3 constraint that was shaping this task?

01:06:54 4 A. The same constraint that faces  
01:06:56 5 all the other map makers, which is  
01:06:59 6 Pennsylvania's population has changed  
01:07:00 7 overtime. And as was pointed out  
01:07:02 8 earlier this morning some population  
01:07:06 9 stagnation relative to other states  
01:07:09 10 means that Pennsylvania has lost a  
01:07:11 11 seat, but also within the State  
01:07:13 12 there's been a substantial  
01:07:15 13 reorientation of population toward  
01:07:18 14 this --- to the eastern part of the  
01:07:20 15 state and to the Pittsburgh area. And  
01:07:23 16 there's been population decline  
01:07:24 17 elsewhere.

01:07:27 18 Q. Could we please turn to figure  
01:07:30 19 two of your report, which is on page  
01:07:43 20 eight. And this is a diagram entitled  
01:07:45 21 the geography of population shifts  
01:07:50 22 Pennsylvania Counties 2010 to 2020.

01:07:52 23 Doctor Rodden, what does this  
01:07:53 24 diagram show?

01:07:53 25 A. This is just a visualization of

01:07:55 1 the population changes I just  
01:07:57 2 mentioned. So we have the county  
01:07:57 3 level of population data from 2010 and  
01:08:00 4 county level population data from  
01:08:02 5 2020. And I'm just taking the raw  
01:08:05 6 changes in those population numbers  
01:08:06 7 and making a map to display the places  
01:08:09 8 where population has grown the most  
01:08:12 9 and oriented the colors so that yellow  
01:08:18 10 is --- orients us to all of the  
01:08:20 11 counties that have lost population.  
01:08:23 12 And then the counties with some shade  
01:08:26 13 of orange have gained population,  
01:08:27 14 getting to the darkest --- deepest  
01:08:30 15 shade of orange in the places that  
01:08:31 16 have gained the most population.  
01:08:34 17 Q. What conclusion do you draw  
01:08:37 18 from Figure 2?  
01:08:39 19 A. Well, as affects redistricting,  
01:08:41 20 I should point out that the figure  
01:08:43 21 also contains the old 18 districts  
01:08:46 22 from the previous plan, so it shows us  
01:08:48 23 the starting point for redistricting  
01:08:50 24 if we consider that plan, and it shows  
01:08:54 25 us what has changed. So it gives us a

01:08:57 1 sense of what parts of the state will  
01:09:00 2 experience some change. And this is a  
01:09:02 3 constraint that faces not just --- not  
01:09:04 4 just my plan but any plan. This is  
01:09:06 5 the starting point for all of the  
01:09:07 6 experts who will be testifying.

01:09:11 7 Q. Based on this figure and your  
01:09:18 8 analysis of the demographic changes,  
01:09:22 9 where across the State are the most  
01:09:28 10 changes necessary for drawing a plan?

01:09:33 11 A. In the places where we see  
01:09:35 12 yellow on the map. So these are the  
01:09:36 13 places where it would not be possible  
01:09:38 14 to keep the existing jurisdictional  
01:09:41 15 arrangement because of population laws  
01:09:42 16 and the places where we see more  
01:09:45 17 orange colors are places where it is  
01:09:47 18 possible to retain the existing  
01:09:48 19 District arrangement. And we'll see  
01:09:50 20 that that has been largely the case in  
01:09:52 21 my plan.

01:09:55 22 Q. You mentioned earlier that you  
01:09:57 23 were asked to use the 2018 plan as a  
01:09:59 24 starting point to draw your map. Were  
01:10:01 25 you already familiar with the 2018

01:10:03 1 plan when that request was made?

01:10:05 2 A. Yes, it's a plan that I've  
01:10:08 3 examined in some of my academic work  
01:10:10 4 and had already ascertained in that  
01:10:13 5 work that this was a plan that was --  
01:10:16 6 that performed very well on  
01:10:17 7 traditional redistricting criteria,  
01:10:27 8 and had also noticed that it was ---.

01:10:27 9 COURT REPORTER:

01:10:27 10 Had performed very well  
01:10:27 11 on traditional --- you're going to  
01:10:29 12 have to slow down a little bit.

01:10:29 13 THE WITNESS:

01:10:29 14 Of course, thank you. I  
01:10:30 15 had noticed in a variety of metrics  
01:10:32 16 and in some different academic work,  
01:10:34 17 that the plan that was enacted by the  
01:10:37 18 Supreme Court in 2018 was a plan that  
01:10:41 19 performed very well according to  
01:10:43 20 traditional redistricting criteria.  
01:10:45 21 It was a compact plan and it was ---  
01:10:48 22 it was a plan that involved relatively  
01:10:50 23 few county splits and other  
01:10:53 24 jurisdictional splits, so it was a  
01:10:55 25 plan I was already familiar with on



01:10:57 1 those grounds. It's also a plan that  
01:11:00 2 I examined with respect to partisan  
01:11:03 3 fairness, and others have as well, and  
01:11:05 4 it was broadly recognized to be quite  
01:11:08 5 a fair plan. I think it had that  
01:11:10 6 reputation broadly in the community of  
01:11:13 7 people who study redistricting.

01:06:11 8 BY ATTORNEY JASRASARIA:

01:06:11 9 Q. Did you agree with the approach  
01:11:20 10 of using the 2018 plan as a guide?

01:11:23 11 A. Yes, that's what I was asked to  
01:11:25 12 do, and I agreed to do it. I thought  
01:11:25 13 it seemed like a fine strategy,  
01:11:27 14 especially if the goal was to abide by  
01:11:29 15 traditional redistricting criteria,  
01:11:32 16 this was a very good place to start.

01:11:34 17 Q. I'd like to briefly discuss how  
01:11:38 18 you created the map that has been  
01:11:40 19 considered for the Court's  
01:11:41 20 consideration as the Carter plan.  
01:11:42 21 Did you construct a map based on  
01:11:45 22 adherence to certain criteria?

01:11:48 23 A. Yes. I pay attention --- like  
01:11:53 24 every redistricting map in the United  
01:11:55 25 States I paid attention to population,

01:11:58 1 equality. I tried to keep --- I tried  
01:11:59 2 to keep the districts within plus or  
01:12:01 3 minus one population deviation. I  
01:12:03 4 paid attention to county and municipal  
01:12:07 5 and voting tabulation district splits,  
01:12:10 6 so trying to keep political  
01:12:13 7 jurisdictions together and also paid  
01:12:16 8 attention to compactness and  
01:12:22 9 contiguity, these four basic  
01:12:24 10 traditional redistricting principles.  
01:12:24 11 Q. Let's break that down. What  
01:12:26 12 does contiguity mean?  
01:12:28 13 A. That simply means that we ---  
01:12:30 14 when we draw a redistricting plan, we  
01:12:32 15 don't want to have non-contiguous  
01:12:34 16 fragments, so an example that others  
01:12:37 17 sitting in the room might be familiar  
01:12:39 18 with, there's a little section of  
01:12:42 19 Chester County that is formed by a  
01:12:44 20 bend in the river --- in a creek,  
01:12:46 21 actually, that has six people in it  
01:12:48 22 and it is a little fragment that is  
01:12:50 23 not contiguous with the rest of the  
01:12:52 24 county. So it is not permissible to  
01:12:55 25 take that fragment and attach it to

01:12:57 1 the rest --- to the District that  
01:12:59 2 contains Chester County. It's  
01:13:01 3 necessary to make sure that fragment  
01:13:03 4 is contiguous with the surrounding  
01:13:07 5 area, so all of us have to abide by  
01:13:12 6 that constraint.

01:13:12 7 Q. Was your map contiguous?

01:13:15 8 A. Yes.

01:13:15 9 Q. And did you evaluate the other  
01:13:17 10 maps for continuity?

01:13:19 11 A. I did.

01:13:19 12 Q. What was the result?

01:13:20 13 A. They all had the same feature.  
01:13:21 14 There were no non-contiguities. There  
01:13:23 15 may have been one unpopulated census  
01:13:24 16 block that was inadvertently left in  
01:13:29 17 one of the plans, but in general I  
01:13:30 18 would agree that they all were  
01:13:33 19 involved, did not produce any  
01:13:38 20 non-contiguities.

01:13:38 21 Q. Turning to compactness, how do  
01:13:42 22 you measure compactness?

01:13:44 23 A. Well, given the amount of time  
01:13:46 24 we have today, I will not go into a  
01:13:49 25 discourse on compactness. It's

01:13:50 1 something that we will hear a lot  
01:13:53 2 about I presume. It is a concept that  
01:13:56 3 --- in which in redistricting we like  
01:13:58 4 to avoid districts that have very  
01:14:00 5 unnatural shapes. Someone referred  
01:14:05 6 earlier today to a district involving  
01:14:08 7 Goofy and, you know, some comic  
01:14:09 8 characters.

01:14:11 9 It's a long tradition  
01:14:12 10 tradition starting with Elbridge Gerry  
01:14:13 11 of these districts that are very oddly  
01:14:15 12 shape with claws and tentacles. So we  
01:14:18 13 want some way to measure that and try  
01:14:19 14 to avoid it, and so mathematicians and  
01:14:23 15 social scientists have been developing  
01:14:25 16 over the years, various ways of trying  
01:14:26 17 to do this, and they all --- they all  
01:14:28 18 give us a little bit different  
01:14:30 19 information. They all tell us  
01:14:31 20 something different about the geometry  
01:14:33 21 of districts, the shape of districts.  
01:14:36 22 And so we have some measures that we  
01:14:39 23 use to evaluate the individual  
01:14:41 24 districts and we often take an average  
01:14:44 25 for the whole plan, and so I've done

01:14:46 1 some of that in my reports.

01:14:49 2 Q. Is there any one compactness  
01:14:54 3 metric that's more important to meet  
01:14:58 4 than others?

01:14:59 5 A. No, they are a variety of  
01:14:59 6 measures, all of which capture  
01:15:00 7 something subtly different.

01:15:00 8 Q. And what are the compactness  
01:15:02 9 measures that you used in your  
01:15:04 10 analysis?

01:15:05 11 A. I reported on several in my  
01:15:07 12 initial report, but I discussed in  
01:15:09 13 more detail the poles be proper and  
01:15:15 14 REOC measures, simply because I've  
01:15:16 15 noticed they receive the most  
01:15:17 16 attention in previous Pennsylvania  
01:15:20 17 Court decisions and also in other  
01:15:24 18 judicial proceedings in other states.

01:15:29 19 Q. Did you evaluate your plan for  
01:15:31 20 compactness?

01:15:32 21 A. I did.

01:15:32 22 Q. And did you evaluate the other  
01:15:34 23 plans for compactness?

01:15:36 24 A. Yes.

01:15:36 25 Q. How did your plan compare to

01:15:39 1 the other plans?

01:15:45 2 A. Well, this is --- again, the  
01:15:46 3 answer depends on which of these  
01:15:47 4 measures we look at. But on several  
01:15:49 5 of the measures it was somewhere in  
01:15:51 6 the middle of a fairly narrow range,  
01:15:53 7 but on some of the measures it  
01:15:55 8 performed very well. On the REOC  
01:15:59 9 score, it performed near the top. I  
01:16:02 10 think maybe the second to the top.

01:16:03 11 Q. Turning to the next criteria  
01:16:09 12 for political subdivisions. Can you  
01:16:11 13 explain what respect for a political  
01:16:13 14 subdivision boundaries means?

01:16:17 15 A. Yeah. This simply means not  
01:16:20 16 splitting counties in the first  
01:16:22 17 instance. And then we can also talk  
01:16:24 18 about other sub-county jurisdictions.  
01:16:26 19 In some states there are jurisdictions  
01:16:28 20 that cross county boundaries, so we  
01:16:29 21 have a trade-off between not splitting  
01:16:32 22 a county and not splitting, say, a  
01:16:34 23 city like Columbus, Ohio that crosses  
01:16:37 24 county boundaries.

01:16:42 25 But in general the idea

01:16:43 1 is to not split these jurisdictions,  
01:16:45 2 but there are trade-offs between  
01:16:47 3 different jurisdictions. We want to,  
01:16:51 4 in many cases focusing on counties is  
01:16:54 5 what redistricters are specially  
01:16:55 6 attentive to. We want to try not to  
01:16:57 7 split counties, keep counties whole  
01:17:00 8 when we can, and that's something I  
01:17:03 9 took very seriously. But I also pay  
01:17:05 10 very close attention to vote  
01:17:06 11 tabulation districts in my analysis  
01:17:08 12 and try to minimize splits of vote  
01:17:15 13 tabulation districts.

01:17:19 14 Q. Why did you try to minimize the  
01:17:24 15 splits of vote tabulation districts?  
01:17:24 16 Or I guess, let me start --- what is a  
01:17:24 17 a vote tabulation district?

01:17:24 18 A. Yes. This is an important  
01:17:27 19 geographic entity in the  
01:17:29 20 administration of elections. This is  
01:17:31 21 where the election really happens and  
01:17:35 22 is administered at the level of vote  
01:17:38 23 tabulation districts. So in U.S.  
01:17:39 24 elections we have so many different  
01:17:42 25 jurisdictions, so many different

01:17:44 1 offices, we have districts for city  
01:17:48 2 council, we have districts for the  
01:17:50 3 state legislature and for congress.  
01:17:53 4 It's very important that everyone  
01:17:54 5 receive a ballot that has the correct  
01:17:56 6 offices on it, and this is what  
01:17:58 7 happens at the level of vote  
01:18:00 8 tabulation districts and precincts.  
01:18:03 9 And so if we split a VTD ---  
01:18:07 10 that's the short for vote tabulation  
01:18:10 11 district --- this creates a serious  
01:18:11 12 headache for election administrators,  
01:18:16 13 and it's something I've spoken with  
01:18:18 14 election administrators about and  
01:18:20 15 I've, in fact, seen. I have not been  
01:18:22 16 involved directly, but have learned a  
01:18:29 17 lot about lawsuits in which sometimes  
01:18:30 18 the wrong ballot ends up going to the  
01:18:30 19 wrong people. It's a technical  
01:18:33 20 problem. Whenever you split a vote  
01:18:34 21 tabulation district, you are forcing  
01:18:35 22 election administrators to try to put  
01:18:37 23 people into two bins when they come in  
01:18:41 24 and try to make sure that everyone  
01:18:43 25 gets the correct ballot.



01:18:44 1 And when we split VTDs we run  
01:18:47 2 the risk that mistakes are made. And  
01:18:47 3 when there are very close elections,  
01:18:50 4 these mistakes can be very  
01:18:53 5 consequential and can actually affect  
01:18:57 6 the outcome of the election.

01:18:59 7 Q. Were there any subdivision  
01:19:01 8 splits that your plan performed  
01:19:02 9 particularly well on compared to the  
01:19:04 10 other plans?

01:19:05 11 A. It performed very well on  
01:19:08 12 county splits, which is not  
01:19:10 13 surprising, because I was starting  
01:19:11 14 from a plan that was very low on  
01:19:13 15 county splits and I was asked to even  
01:19:16 16 reduce the number of county splits, if  
01:19:19 17 possible, and so I was able to do  
01:19:20 18 that.

01:19:21 19 So I believe my plan performs  
01:19:23 20 very well relative to the others on  
01:19:25 21 county splits, and I think it's  
01:19:26 22 important that we not just look at the  
01:19:29 23 total number of counties that were  
01:19:31 24 split, but the number of actual splits  
01:19:34 25 of counties. We can achieve a very

01:19:37 1 low number of counties --- of split  
01:19:39 2 counties if we just take some counties  
01:19:41 3 and split them many times. So I think  
01:19:45 4 it's useful to look at the total  
01:19:47 5 number of splits of counties. And on  
01:19:48 6 that dimension, my plan does very  
01:19:53 7 well.

01:19:53 8 Q. Did your plan also perform well  
01:19:55 9 on voter tabulation districts or VTDs?

01:19:59 10 A. Yes. I think I paid special  
01:19:59 11 attention to that. It's something  
01:20:01 12 that I really tried hard to --- I  
01:20:01 13 think the number that I eventually  
01:20:04 14 split was 17, and that's a number that  
01:20:06 15 corresponds to the number of  
01:20:08 16 districts. So I tried at each  
01:20:10 17 boundary to only split one vote  
01:20:13 18 tabulation district, and then there  
01:20:16 19 are some places in particular in  
01:20:17 20 Philadelphia where I managed not to  
01:20:19 21 split any.

01:20:25 22 Q. Turning to the final criteria  
01:20:27 23 of the first four that you mentioned,  
01:20:27 24 can you explain how population quality  
01:20:28 25 is measured?

01:20:30 1 A. Right. We simply take the most  
01:20:32 2 recent population number for  
01:20:36 3 Pennsylvania and divide by 17, and  
01:20:38 4 then we have a number, I believe it's  
01:20:41 5 765,000, which is our --- give or take  
01:20:45 6 --- I forgot the exact number, but  
01:20:46 7 that is our --- all of us had that  
01:20:48 8 same target population. And we try to  
01:20:50 9 draw districts by choosing county  
01:20:54 10 subdivisions and vote tabulation  
01:20:56 11 districts, and at the very end of the  
01:20:57 12 process we might have to split a vote  
01:21:00 13 tabulation district in order to get  
01:21:02 14 that number to zero or negative one or  
01:21:05 15 one to get it as close as possible to  
01:21:08 16 equality.

01:21:10 17 Q. Did you assess the equal  
01:21:11 18 population for your plan?

01:21:13 19 A. Yes.

01:21:13 20 Q. And did you assess equal  
01:21:15 21 population for the other plans?

01:21:17 22 A. Yes.

01:21:19 23 Q. From the information and data  
01:21:21 24 that you received were all of the  
01:21:23 25 plans equally populated under the

01:21:25 1 population data that they were using?

01:21:28 2 A. Yes.

01:21:28 3 Q. And your plan was as well?

01:21:33 4 A. Yes.

01:21:34 5 Q. Could you have gotten any  
01:21:36 6 closer to population equality?

01:21:38 7 A. No, one person is --- I think  
01:21:42 8 is very good.

01:21:48 9 Q. At this time I'd like to just  
01:21:49 10 ask you some questions about the  
01:21:50 11 Carter plan itself. Can we pull up  
01:21:54 12 Figure 5 on page 13 of the report?  
01:21:57 13 And this is a diagram that's entitled  
01:22:00 14 proposed Congressional District  
01:22:04 15 Boundaries.

01:22:05 16 And Doctor Rodden, can you  
01:22:09 17 describe what this figure is showing  
01:22:10 18 us?

01:22:11 19 A. Yes. What we see here are the  
01:22:12 20 proposed Carter plan boundaries that  
01:22:18 21 are --- that correspond to different  
01:22:19 22 colors. And so you can see each color  
01:22:22 23 corresponds to a proposed district.  
01:22:23 24 But what this plan --- what this  
01:22:26 25 figure also shows us is of, course,

01:22:29 1 the Pennsylvania counties, and it also  
01:22:31 2 shows us in, kind of, dark somewhat  
01:22:34 3 transparent grey, it shows us the old  
01:22:36 4 2018 district boundaries. So we can  
01:22:40 5 compare where the changes have been  
01:22:41 6 made.

01:22:59 7 Q. And what kinds of changes ---  
01:23:01 8 what was the major change that you had  
01:23:03 9 to make here?

01:23:04 10 A. Yeah. What we can see from  
01:23:06 11 looking at this level of Zoom at the  
01:23:07 12 whole state, I think it's helpful to  
01:23:09 13 think back to that orange and yellow  
01:23:12 14 map we were considering a moment ago.  
01:23:13 15 The places that looked orange on that  
01:23:17 16 map where the population is growing,  
01:23:19 17 and particularly where it's growing at  
01:23:20 18 about the rate of the U.S. population  
01:23:23 19 in the southeast part of the state, it  
01:23:25 20 was easy to keep the district  
01:23:27 21 boundaries relatively similar.

01:23:30 22 And so we see that the - that  
01:23:31 23 the correspondence between the new  
01:23:34 24 districts represented in colors and  
01:23:37 25 the old districts with the grey lines,

01:23:40 1 the correspondence is quite strong as  
01:23:43 2 we go through --- going from northeast  
01:23:47 3 to kind of around clockwise, it's  
01:23:50 4 quite strong in eight, seven, one,  
01:23:56 5 four, two and three, both of those are  
01:23:58 6 Philadelphia districts, and in five,  
01:24:01 7 which is based in Delaware County.  
01:24:03 8 And District 6, which is based in  
01:24:05 9 Chester County, as well as Districts  
01:24:08 10 10 and 11.

01:24:09 11 Those districts have  
01:24:10 12 experienced, in the Carter plan,  
01:24:12 13 relatively minor changes from their  
01:24:14 14 orientation in the previous plan.  
01:24:17 15 And the same is true of districts on  
01:24:21 16 the west side of the state of  
01:24:23 17 Districts 12 and 17, which you may  
01:24:25 18 remember also experienced some  
01:24:27 19 population growth since the last  
01:24:28 20 census, not quite as much growth as  
01:24:32 21 the U.S. as a whole, but experienced  
01:24:35 22 growth. So it was possible to keep  
01:24:37 23 the existing orientation rather  
01:24:39 24 similar.

01:24:39 25 And so we see, just looking at

01:24:41 1 this broad Zoom we can also understand  
01:24:45 2 that Districts 16 and 14 on the west  
01:24:48 3 --- on the western boundary of the  
01:24:50 4 state, because there's a state  
01:24:52 5 boundary there, because the population  
01:24:55 6 loss is relatively large in these  
01:24:57 7 counties, they have to move a little  
01:25:01 8 bit to the east. There's really no  
01:25:03 9 other place for them to go, other than  
01:25:04 10 to take up some space moving further  
01:25:07 11 east into Pennsylvania. And so this  
01:25:11 12 is something, that, again, it's not  
01:25:13 13 just my approach that has this  
01:25:15 14 problem.

01:25:16 15 Anyone drawing the District of  
01:25:18 16 Pennsylvania has the problem that in  
01:25:19 17 the middle of the state where the  
01:25:21 18 population loss happens, the districts  
01:25:23 19 will change more substantially from  
01:25:27 20 the old plan. And that's why we see  
01:25:29 21 less correspondence between the old  
01:25:33 22 and new boundaries out there.

01:25:38 23 Q. Let's pull up Figure 6, which  
01:25:42 24 is on page 13 of the report, and this  
01:25:45 25 is entitled the Philadelphia Area.

01:25:49 1 Can you describe what you did with the  
01:25:51 2 districts here, Doctor Rodden?  
01:25:53 3 A. Sure. I'll try to do so  
01:25:55 4 briefly. District 1 in Bucks County,  
01:25:58 5 this is a place that was gaining  
01:26:07 6 population, but not at a very rapid  
01:26:12 7 rate, so it's --- it's relative to the  
01:26:12 8 new ideal population. It was  
01:26:12 9 underpopulated, and so it needed to  
01:26:12 10 pick up some people.

01:26:16 11 So we can see I've kept the  
01:26:18 12 arrangement very similar to before,  
01:26:19 13 but added some additional parts of  
01:26:20 14 Montgomery County in order to make  
01:26:23 15 that District reach population  
01:26:25 16 equality. And the choices of places  
01:26:27 17 in Montgomery were based on trying to  
01:26:28 18 keep --- trying to keep municipalities  
01:26:29 19 together and trying to avoid VTD  
01:26:29 20 splits and achieve one person  
01:26:35 21 population deviation equality.

01:26:36 22 So that's what's happening in  
01:26:37 23 District 1. Districts 2 and 3, the  
01:26:40 24 Philadelphia County population is  
01:26:42 25 actually growing at a very similar



01:26:44 1 rate to the national population. So  
01:26:48 2 it's really not necessary to change  
01:26:51 3 much at all from Districts 2 to 3 in  
01:26:53 4 the existing map. So there's just a  
01:26:55 5 little alteration needed there to  
01:26:58 6 reach population equality.

01:27:00 7 District 5 is similar to  
01:27:02 8 District 1 in that its population  
01:27:10 9 growth was somewhat slower, and so it  
01:27:10 10 also was below the target population,  
01:27:12 11 and so it needed to pick up some  
01:27:13 12 places. And this is the kind of thing  
01:27:15 13 where we can appreciate the trade-offs  
01:27:17 14 that someone makes when they're  
01:27:18 15 drawing a districting plan. It has to  
01:27:21 16 pick up some people in someplace. It  
01:27:23 17 already was going into Montgomery  
01:27:25 18 County. It can go further into  
01:27:27 19 Montgomery County and add some more  
01:27:29 20 people, or it can go up into Chester  
01:27:32 21 County and which then creates a split  
01:27:35 22 in Chester County, which then  
01:27:37 23 unfortunately has a cascading effect  
01:27:41 24 and creates splits in many of the  
01:27:42 25 surrounding counties.

01:27:43 1 And so this is an example of a  
01:27:44 2 place where there's a trade-off where  
01:27:46 3 an redistricting expert has to face,  
01:27:51 4 between --- between splits in  
01:27:52 5 different places and also involving  
01:27:54 6 compactness. So what I decided was  
01:27:57 7 that by keeping the existing  
01:27:58 8 arrangement and moving District 5 into  
01:28:01 9 Montgomery County, that it would then  
01:28:04 10 --- that what then has to happen is  
01:28:05 11 Montgomery County has to --- has to  
01:28:08 12 --- also needs some population that  
01:28:10 13 needs to move further up into Berks  
01:28:10 14 County.

01:28:13 15 And that is the arrangement  
01:28:15 16 that I chose, and it's one that I  
01:28:16 17 chose purely for reasons of avoiding  
01:28:19 18 other splits and other places, so this  
01:28:22 19 is why my county splits number is low,  
01:28:24 20 because of a choice like that.

01:28:27 21 Q. Let's turn to Figure 7 on the  
01:28:29 22 next page. Thanks. So this is a  
01:28:37 23 diagram entitled District 7 and 8.  
01:28:40 24 Could you describe what you did with  
01:28:41 25 these districts in your plan?

01:28:44 1 A. Yes, I hope the colors are  
01:28:46 2 clear to people. There's a shade of  
01:28:49 3 green and a shade of blue that may not  
01:28:51 4 be great for people who are  
01:28:53 5 colorblind. But there is a ---  
01:28:54 6 there's a District 7, which is a  
01:28:57 7 Lehigh Valley District that was  
01:29:00 8 already in existence, but it needed  
01:29:02 9 some more population, and the  
01:29:10 10 metropolitan statistical area of ---  
01:29:15 11 of Easton and Bethlehem and --- you  
01:29:15 12 know, of the Lehigh Valley, it  
01:29:18 13 includes Carbon County. In that  
01:29:18 14 Carbon County in the past had been ---  
01:29:26 15 had been separated from this district.  
01:29:27 16 So I was able to combine the entire  
01:29:27 17 metropolitan statistical area in, kind  
01:29:27 18 of, a communities of interest  
01:29:27 19 consideration. I was able to combine  
01:29:34 20 that entire MSA into a district that  
01:29:36 21 became District 7, but its basic  
01:29:41 22 structure is not very different than  
01:29:42 23 before.

01:29:43 24 And then District 8 is --- is  
01:29:44 25 also very similar to before. This is

01:29:45 1 one that contains the Scranton,  
01:29:47 2 Wilkes-Barre and surrounding areas and  
01:29:50 3 it was possible just to add a little  
01:29:56 4 bit of --- its population growth was a  
01:30:02 5 little low relative to other places,  
01:30:02 6 so it was necessary to add a little  
01:30:02 7 bit of territory in Monroe County and  
01:30:02 8 very small amount of territory in ---  
01:30:10 9 outside of Wilkes-Barre.

01:30:13 10 Q. Let's look to Figure 8, and  
01:30:17 11 this one is entitled District 6, 10  
01:30:17 12 and 11.

01:30:17 13 Could you briefly describe what  
01:30:26 14 you did with the districts here?

01:30:26 15 A. Yes. This is another one where  
01:30:26 16 I can be very brief, because as we saw  
01:30:29 17 in that initial map, the population  
01:30:30 18 growth was very similar to the  
01:30:34 19 national average and so these  
01:30:35 20 districts were already very close to  
01:30:37 21 the target population.

01:30:38 22 District 6 had to just make  
01:30:40 23 minimal changes by taking in an  
01:30:43 24 additional part of a township that had  
01:30:44 25 already been split in the earlier

01:30:46 1 plan. I just took in a little bit  
01:30:50 2 more of that township and it had  
01:30:50 3 population of equality.

01:30:51 4 District 11, only some small  
01:30:53 5 changes on its western boundary. And  
01:30:57 6 District 10 was one that is --- it's  
01:31:01 7 clearly constructed in a communities  
01:31:05 8 of interest framework. It's one that  
01:31:07 9 is attempting to keep Harrisburg  
01:31:09 10 together. It is at the confluence of  
01:31:12 11 three counties. And this is a  
01:31:13 12 district that tries to keep that city  
01:31:14 13 together in the same district. And so  
01:31:16 14 I retained that structure and dealt  
01:31:19 15 with population equality by simply  
01:31:25 16 moving the boundary --- we already had  
01:31:25 17 split Cumberland County, simply move  
01:31:25 18 the boundaries somewhat to the west in  
01:31:28 19 order to accommodate that.

01:31:28 20 Q. Let's pull up Figure 9. And  
01:31:32 21 this one is just describing District  
01:31:32 22 9.

01:31:38 23 Can you also briefly describe  
01:31:42 24 what you did here?

01:31:43 25 A. This is a district that was

01:31:44 1 previously smaller, but this is an  
01:31:46 2 area, as we saw in that earlier map,  
01:31:48 3 where population loss is happening.  
01:31:51 4 And some of these other --- some of  
01:31:54 5 the moves I just described involve  
01:31:56 6 some incursion into what used to be  
01:32:00 7 District 9's territory.

01:32:00 8 So you have incursions --- for  
01:32:03 9 example, District 4 into Berks County,  
01:32:05 10 District 8 moving a little bit further  
01:32:08 11 out to the west. And --- but above  
01:32:12 12 all population loss, it just requires  
01:32:14 13 the footprint of District 9 to expand  
01:32:17 14 in order to have --- for it to have  
01:32:24 15 enough people.

01:32:24 16 Q. Let's turn to Figure 10. This  
01:32:27 17 figure is describing Districts 13 and  
01:32:31 18 15.

01:32:32 19 Could you describe what you did  
01:32:33 20 here?

01:32:33 21 A. This is an area whereas I  
01:32:35 22 described some things --- some of  
01:32:36 23 these districts, with 9 is taking over  
01:32:38 24 some of the territory that was  
01:32:40 25 previously in District 12. And

01:32:44 1 District 10 is expanding somewhat to  
01:32:46 2 the east. And as we'll see in a  
01:32:48 3 moment District 16 and 14 are  
01:32:51 4 expanding to the east.

01:32:52 5 I'm sorry, I misspoke a moment  
01:32:55 6 ago. Those other places were  
01:32:57 7 expanding a bit to the west. So the  
01:33:00 8 center part of the state is being  
01:33:04 9 squeezed by these population changes.  
01:33:06 10 And so this is a place where the  
01:33:07 11 retention of District 12, 13 and 15  
01:33:10 12 was not --- was not possible. And so  
01:33:12 13 it was --- I tried to --- in making  
01:33:16 14 that reorientation of that area, tried  
01:33:18 15 to make compact districts, and again  
01:33:23 16 tried to minimize county splits.

01:33:25 17 And also, in terms of  
01:33:26 18 communities of interest, the old plan  
01:33:30 19 had split State College from some of  
01:33:33 20 its suburbs. So this plan makes a  
01:33:37 21 rather compact and rectangular  
01:33:39 22 District 15 and resolves that problem  
01:33:42 23 and also creates a relatively compact  
01:33:45 24 version of District 13, but also  
01:33:46 25 attempts to minimize splits.

01:33:48 1 Q. And finally, let's move to  
01:33:50 2 Figure 11. This one describes the  
01:33:56 3 western Pennsylvania Districts 14, 12,  
01:33:58 4 17 and 16. I know we discussed this  
01:34:01 5 briefly with the larger map, and so if  
01:34:03 6 there's anything that you would like  
01:34:04 7 to add to your description about what  
01:34:07 8 you did here.

01:34:09 9 A. Merely that --- that the old  
01:34:11 10 plan was --- was clearly attempting to  
01:34:18 11 keep the City of Pittsburgh together  
01:34:19 12 in one district, and that district was  
01:34:20 13 previously known as District 18, but  
01:34:21 14 we've lost districts. That number  
01:34:24 15 doesn't work for us anymore. I've  
01:34:26 16 called it District 12.

01:34:27 17 And this is a --- this is a  
01:34:30 18 district that stays much the same, but  
01:34:33 19 in order to keep this orientation that  
01:34:36 20 the previous map had between Allegheny  
01:34:39 21 County and its surroundings, it was  
01:34:43 22 possible to simply alter, very  
01:34:44 23 slightly, the border between 12 and  
01:34:49 24 17, and then expand 12 in a way that  
01:34:53 25 --- that really just expand Pittsburgh



01:34:54 1 --- the southern Pittsburgh district  
01:34:56 2 into more of its suburbs and exurbs  
01:35:02 3 over in Westmoreland County. And  
01:35:02 4 then, with respect to 14 and 16, they  
01:35:04 5 simply, as described earlier, have  
01:35:06 6 their existing orientation but have to  
01:35:08 7 pick up population by moving slightly  
01:35:17 8 eastward.

01:35:17 9 Q. So now that we've gone through  
01:35:18 10 the whole plan, how does the Carter  
01:35:21 11 plan respect communities of interest?

01:35:24 12 A. Well, I've walked through a few  
01:35:26 13 examples of that. For me the most  
01:35:28 14 important thing is to think about ---  
01:35:30 15 it's similar in spirit to the idea of  
01:35:33 16 minimizing jurisdictional splits.  
01:35:34 17 Sometimes counties split cities in  
01:35:38 18 ways that even though formally it's  
01:35:42 19 not --- we're not minimizing county  
01:35:45 20 splits if we divide Harrisburg up into  
01:35:50 21 three. But it would be --- it makes a  
01:35:51 22 lot of sense from a districting  
01:35:53 23 perspective to try to keep whole  
01:35:55 24 places like Harrisburg, the Lehigh  
01:35:58 25 Valley, State College --- there's some

01:35:58 1 other examples of places like that,  
01:36:03 2 that in drawing the lines, even though  
01:36:04 3 I was making small changes from the  
01:36:05 4 existing plan I attempted to avoid  
01:36:08 5 splitting apart those types of  
01:36:12 6 communities.

01:36:19 7 Q. What are your overall  
01:36:20 8 conclusions, based on your analysis  
01:36:22 9 about how the Carter plan compares to  
01:36:23 10 the 2018 plan?

01:36:26 11 A. Well, I was able to --- I was  
01:36:28 12 able to quantitatively analyze that by  
01:36:31 13 just looking at the --- looking at the  
01:36:34 14 population data and overlaying the  
01:36:34 15 maps and trying to get just a simple  
01:36:37 16 measure that says what percentage of  
01:36:38 17 the population in each district that I  
01:36:40 18 created was already in that district,  
01:36:47 19 so I did that district by district and  
01:36:50 20 looked at the plan as a whole.

01:37:02 21 But the conclusion from that, I  
01:37:05 22 should --- I think --- I didn't fully  
01:37:06 23 answer your question. The conclusion  
01:37:06 24 from that is that they were very ---  
01:37:07 25 that the maps were very similar. They

01:37:09 1 were certainly similar as I could make  
01:37:10 2 them. And they --- and the share of  
01:37:13 3 the population that was contained in  
01:37:16 4 the --- in each district, if we take  
01:37:19 5 average, it was very high. I believe  
01:37:20 6 it was 87 percent.

01:37:23 7 Q. Did you look at that similar  
01:37:25 8 population, lease change metric on the  
01:37:35 9 other plans that were submitted to the  
01:37:36 10 Court?

01:37:36 11 A. Yes, I did.

01:37:36 12 Q. And can you explain what the  
01:37:36 13 utility of that metric is in cases  
01:37:38 14 like this one, where the number of  
01:37:38 15 districts in the plan has actually  
01:37:43 16 changed?

01:37:43 17 A. Well, we can still find --- we  
01:37:45 18 can find what district was the --- in  
01:37:46 19 the new proposed district what is the  
01:37:49 20 largest overlapping district from the  
01:37:54 21 past and we can figure out what the  
01:37:56 22 population overlap is, and there will  
01:37:58 23 still be some. In all of the  
01:38:00 24 districts I created it was well over  
01:38:04 25 50 percent. So it was certainly not

01:38:05 1 --- you know, but you can imagine if  
01:38:06 2 we just start from scratch and we  
01:38:08 3 start drawing districts as if there  
01:38:10 4 was no regard at all for the old plan.  
01:38:12 5 We would have several districts that  
01:38:14 6 would be quite low like that.

01:38:21 7 Q. Could we pull up Table One,  
01:38:25 8 which is on page two of the rebuttal  
01:38:26 9 --- or of the response report. This  
01:38:28 10 is entitled Retained Population Share  
01:38:30 11 in the 14 Submitted Congressional  
01:38:32 12 Plans.

01:38:33 13 Could you explain to us what  
01:38:35 14 this table shows?

01:38:36 15 A. Yes. I was just describing the  
01:38:38 16 approach I took to these calculations  
01:38:42 17 just overlap --- again, overlaying  
01:38:44 18 those maps, finding the largest  
01:38:46 19 fragment in each district from the old  
01:38:47 20 plan and asking what share of the  
01:38:49 21 people in the new plan, the proposed  
01:38:53 22 plan would be in the same district as  
01:38:56 23 the old plan, the same district being  
01:38:59 24 described as --- being defined as the  
01:39:01 25 largest overlapping one.

01:39:03 1 And so what --- what I did, I  
01:39:06 2 took averages for all the districts  
01:39:09 3 and this is what we see for the ---  
01:39:18 4 for each of the plans.

01:39:18 5 Q. Based on this analysis, what  
01:39:21 6 can you conclude about the Carter plan  
01:39:22 7 as compared to the other plans that  
01:39:24 8 are being considered on this  
01:39:27 9 particular metric?

01:39:27 10 A. Yes. On this metric, which I  
01:39:29 11 called Retained Population Share, my  
01:39:30 12 plan --- the Carter plan is 87 percent  
01:39:33 13 and the --- perhaps, let's see the  
01:39:37 14 next largest one is the Citizen voters  
01:39:40 15 plan and there are several that follow  
01:39:43 16 later, but they're all --- they're all  
01:39:43 17 quite a bit lower.

01:39:52 18 Q. So now that we've talked about  
01:39:54 19 some other criteria that you  
01:39:55 20 considered and the decisions that you  
01:39:57 21 have made in drawing your plan, did  
01:39:59 22 you consider any racial data when  
01:40:02 23 drawing your plan?

01:40:02 24 A. No.

01:40:03 25 Q. And do you consider partisan

01:40:04 1 data when drawing your plan?

01:40:08 2 A. No.

01:40:08 3 Q. Did you evaluate the  
01:40:09 4 partisanship of your map at any point?

01:40:14 5 A. At the end. I created some  
01:40:15 6 partisan indices and I discussed those  
01:40:18 7 in my report.

01:40:20 8 Q. And did you evaluate the  
01:40:22 9 partisanship of the other maps that  
01:40:26 10 were submitted to the Court?

01:40:27 11 A. I did.

01:40:27 12 Q. Were you aware of the  
01:40:28 13 identities of the groups that either  
01:40:29 14 supported or supported the maps that  
01:40:31 15 were sent to the Court?

01:40:32 16 A. No, the maps were provided to  
01:40:34 17 me with abbreviations and strange  
01:40:37 18 names that were not familiar to me, so  
01:40:40 19 I was unfamiliar with who produced  
01:40:41 20 those maps. I'm still actually foggy  
01:40:47 21 on who some of the parties are, so  
01:40:48 22 they were unknown to me.

01:40:50 23 Q. So you started mentioning this,  
01:40:54 24 what methodology did you take to  
01:40:57 25 examine the partisanship in the

01:41:02 1 existing maps?

01:41:03 2 A. The same methodology I used in  
01:41:04 3 my --- in my map, which was to take  
01:41:06 4 precinct level data from statewide  
01:41:07 5 elections, and I had access to and  
01:41:10 6 used data from 2016, 2018 and 2020  
01:41:15 7 used those precinct level data to  
01:41:20 8 aggregate to the level of the proposed  
01:41:23 9 districts to my plan and the other  
01:41:25 10 plans, and then analyzed the statewide  
01:41:28 11 vote shares that would be obtained if  
01:41:33 12 we were just looking --- just using  
01:41:35 13 statewide vote chairs somehow to  
01:41:37 14 determine the winners of those  
01:41:38 15 districts. Use that as a rule of  
01:41:41 16 thumb to just starting the process to  
01:41:44 17 try to understand what kind of  
01:41:45 18 partisan outcomes we might get from  
01:41:48 19 this type of map.

01:41:51 20 Q. Can you explain why you would  
01:41:52 21 use a statewide data for this type of  
01:41:55 22 analysis?

01:41:58 23 A. Well, we are trying to think  
01:41:59 24 about what this map might produce in  
01:42:02 25 the future, so the legislative

01:42:04 1 elections haven't happened yet and we  
01:42:06 2 can't really use old legislative  
01:42:08 3 elections, because all of the changes  
01:42:10 4 that have been made. So statewide  
01:42:13 5 races are useful because the same  
01:42:15 6 candidates are competing for the same  
01:42:17 7 offices throughout the state. So they  
01:42:18 8 give us a rule of thumb sense of what  
01:42:21 9 the partisanship of a district looks  
01:42:28 10 like.

01:42:28 11 Q. Let's pull up Table 5, which is  
01:42:31 12 on page nine of the Response Report.  
01:42:43 13 So this is figure is titled number of  
01:42:46 14 seats in various categories in all of  
01:42:47 15 the plans.

01:42:47 16 ATTORNEY JASRASARAI:  
01:42:48 17 Could we highlight the  
01:42:49 18 row that says Carter plan? It's like  
01:42:51 19 halfway down.

01:42:51 20 BY ATTORNEY JASRASARAI:

01:43:03 21 Q. Can you describe what this  
01:43:04 22 table shows with regard to the seats?

01:43:06 23 A. Yes, I would like to begin by  
01:43:14 24 informing the Court of the mistake in  
01:43:15 25 this --- in this --- at this table,



01:43:15

1 which I don't want to confuse anyone.  
2 The far right column says number of  
3 seats with statewide dem vote share.  
4 That should say Rep. It should be  
5 Republican.

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6 So with that in mind, what ---  
7 what I've done here is simply in the  
8 far left and far right column, I've  
9 just asked a simple question. When I  
10 perform that task of aggregating up  
11 all of those precinct level results to  
12 the level of the proposed districts in  
13 these plans, how many of those  
14 districts have a statewide average  
15 Democratic vote share in these 2016 to  
16 2020 races that is above 50 percent.  
17 I'm just adding those things up. And  
18 in the far right column, I'm doing the  
19 same thing for Republicans. What is  
20 the number of seats with a statewide  
21 Republican vote share above  
22 50 percent? So that is a first  
23 approximation of just what the  
24 partisanship of these districts look  
25 like.

01:44:15 1 But what I've done further is  
01:44:17 2 ask some questions about --- I mean, I  
01:44:19 3 think it's very important that we  
01:44:20 4 address not just is it above  
01:44:25 5 50 percent, but how competitive of  
01:44:27 6 these districts. If we're really  
01:44:31 7 trying to get a realistic sense of how  
01:44:33 8 responsive the plan will be and what  
01:44:35 9 might happen over a ten-year period,  
01:44:38 10 it's very valuable to know that some  
01:44:38 11 of these districts are really  
01:44:39 12 essentially coin tosses even though we  
01:44:44 13 have some number that, say, 50 percent  
01:44:45 14 plus, you know, 50.05 or something  
01:44:46 15 like that. It's important when  
01:44:48 16 considering the partisanship of these  
01:44:51 17 plans to know about that.

01:44:52 18 So what I've done here is  
01:44:53 19 simply as a first cut taken this  
01:44:56 20 52 percent as a cut point, and I think  
01:44:58 21 that's a --- that's one that  
01:45:00 22 reasonable people can disagree about.  
01:45:02 23 We can say that the cut point should  
01:45:07 24 be 53, we can say it should be 54.  
01:45:07 25 But I thought this was a useful one

01:45:07 1 just for getting a sense of what are  
01:45:11 2 the really competitive districts that  
01:45:11 3 are potentially like toss ups and what  
01:45:11 4 are the districts that are a little  
01:45:11 5 bit more comfortable for one of the  
01:45:11 6 parties.

01:45:20 7 And so when we add this up we  
01:45:21 8 get this --- we get this column for  
01:45:22 9 the Democrats that's in a darker shade  
01:45:25 10 blue and we get a similar column for  
01:45:30 11 the Republicans that's in a darker  
01:45:32 12 shade of red. In the middle we get a  
01:45:38 13 sense of what kind of really razor's  
01:45:38 14 edge districts are these plans  
01:45:39 15 producing? How many districts are  
01:45:41 16 there that lean a little Democratic or  
01:45:43 17 a little bit Republican? So that's  
01:45:45 18 what we see there in the middle  
01:45:48 19 columns.

01:45:48 20 Q. So looking at the Carter plan  
01:45:51 21 in particular, which the row has been  
01:45:52 22 highlighted, how many seats are above  
01:45:54 23 50 percent Democratic vote share?

01:45:58 24 A. There are ten.

01:45:59 25 Q. And in the Carter plan again,

01:46:01 1 how many seats are above 50 percent  
01:46:04 2 Republican vote share?

01:46:05 3 A. Seven.

01:46:05 4 Q. Does that mean that the Carter  
01:46:06 5 plan will result in ten Democrats and  
01:46:09 6 seven Republicans being elected to  
01:46:11 7 congress from Pennsylvania?

01:46:13 8 A. No, I think that would require  
01:46:15 9 a very naive idea about the way the  
01:46:21 10 statewide vote shares translate into  
01:46:22 11 actual Congressional elections. I  
01:46:25 12 don't think very many political  
01:46:27 13 analysts would --- would anticipate  
01:46:29 14 that kind of an outcome for a couple  
01:46:31 15 of reasons.

01:46:33 16 The first reason is that we can  
01:46:34 17 see that there are two districts here  
01:46:37 18 that are essentially toss ups. They  
01:46:41 19 are very close to 50 percent, but what  
01:46:43 20 I've done in my report, in addition,  
01:46:45 21 is also tried to consider if our goal  
01:46:49 22 in this type of analysis is to think  
01:46:51 23 about what the likely partisanship is  
01:46:55 24 of the plan, of the Congressional  
01:46:56 25 delegation. We would be missing some

01:46:58 1 very valuable information if we did  
01:47:00 2 not pay any attention to incumbency.

01:47:05 3 So one simple way to think  
01:47:07 4 about incumbency is just to look at  
01:47:10 5 --- because again, you asked earlier,  
01:47:12 6 well, why use statewide elections, why  
01:47:15 7 can't we maybe use actual  
01:47:16 8 Congressional elections. Well, the  
01:47:19 9 nice thing about the previous plan is  
01:47:20 10 we can do that, but at the same time  
01:47:22 11 we can see what happened in these  
01:47:23 12 districts in the actual election for  
01:47:26 13 Congress and what happened in these  
01:47:27 14 statewide races.

01:47:28 15 And many of the districts are  
01:47:29 16 relatively similar. In some places  
01:47:32 17 the incumbents over perform relative  
01:47:35 18 to their --- to the statewide vote  
01:47:38 19 share. Now, that's useful information  
01:47:39 20 for us. Again, if our --- if our  
01:47:42 21 exercise here is to really try to  
01:47:43 22 understand what these plans will  
01:47:45 23 produce in terms of partisanship, then  
01:47:49 24 we --- then we would want that  
01:47:50 25 information, we would want to pay

01:47:52 1 attention to that information.

01:47:54 2 And so in these two relatively  
01:47:58 3 highly contested districts in my plan  
01:48:00 4 that are in the --- that --- and those  
01:48:02 5 are Districts 8 and 7, those are the  
01:48:05 6 Lehigh Valley districts and the  
01:48:08 7 Northeast District, those are  
01:48:09 8 districts where the incumbent is  
01:48:13 9 either very similar to the statewide  
01:48:15 10 vote share or does slightly better  
01:48:17 11 than the statewide vote share. So no  
01:48:19 12 matter how we look at those, those are  
01:48:21 13 very competitive districts.

01:48:22 14 However, there's another  
01:48:23 15 District here that currently is  
01:48:25 16 classified in my plan, and in fact,  
01:48:27 17 in, I believe, all of the other plans  
01:48:29 18 is classified as a Democrat --- as a  
01:48:33 19 strong Democratic District. And this  
01:48:35 20 District is, in fact, currently  
01:48:37 21 represented by a Republican incumbent  
01:48:41 22 who over performs consistently  
01:48:44 23 relative to statewide co-partisans to  
01:48:46 24 the --- to the extent of seven  
01:48:46 25 percentage points.

01:48:50 1 So this is District 1 in Bucks  
01:48:53 2 County, which for reasons that we just  
01:48:54 3 walked through, because of its place  
01:48:58 4 in the corner of the state, and  
01:49:03 5 because the fact its population is  
01:49:05 6 very similar to the --- is very close  
01:49:05 7 to the population of a Congressional  
01:49:06 8 district, Bucks County is kept whole  
01:49:10 9 in all of these --- in all these plans  
01:49:11 10 more or less with some exceptions.  
01:49:13 11 But there is a District that is  
01:49:15 12 overwhelmingly based on Bucks County  
01:49:18 13 and all of these plans. And all of  
01:49:19 14 these plans are counting this as a  
01:49:21 15 Democratic District when, in fact,  
01:49:23 16 it's not, and everyone knows that.  
01:49:26 17 And so this is --- if you put  
01:49:31 18 all this together and you realize that  
01:49:33 19 this whole exercise --- and I suspect  
01:49:35 20 we will here a lot about this type of  
01:49:37 21 exercise throughout the day, this  
01:49:39 22 exercise of adding up the number of  
01:49:41 23 districts in which something is above  
01:49:43 24 --- some index is above .5, needs to  
01:49:48 25 be taken with a --- we need to

01:49:50 1 consider these numbers with a great  
01:49:51 2 deal of care and we need to understand  
01:49:53 3 that these numbers, when we have a lot  
01:49:55 4 of very competitive districts in the  
01:49:57 5 middle a very small change can lead  
01:50:01 6 --- can turn what appears to be a 10  
01:50:03 7 to 7 District 1 way into very easily a  
01:50:06 8 10 to 7 District the other way.

01:50:08 9 So in the Carter plan, we  
01:50:10 10 already established that one of these  
01:50:12 11 so-called Democratic districts is  
01:50:14 12 actually represented by a rather safe  
01:50:19 13 Republican incumbent, and we've also  
01:50:21 14 established that there are these two  
01:50:24 15 very competitive districts in the  
01:50:25 16 middle. You put all of that together  
01:50:27 17 in a --- in a somewhat pro Republican  
01:50:29 18 election, this is --- this is a 10 to  
01:50:31 19 7 plan in the other direction.

01:50:33 20 So that needs to be kept in  
01:50:35 21 mind about all of these plans and  
01:50:37 22 about all of the --- all of the  
01:50:37 23 considerations we'll make about  
01:50:40 24 partisanship is based on kind of seat  
01:50:45 25 counting.



01:50:46 1 Q. So given all of that, is the  
01:50:49 2 Carter plan reflective of voter  
01:50:51 3 preferences in Pennsylvania?

01:50:53 4 A. Yeah, for all the reasons I  
01:50:55 5 just described, I believe it is,  
01:50:56 6 because as I think has been pointed  
01:50:58 7 out earlier today it is a state that  
01:51:00 8 has had Democratic vote share between  
01:51:04 9 52 and 53 percent in statewide  
01:51:06 10 elections, so we would anticipate a  
01:51:09 11 set of districts in which there's more  
01:51:12 12 likely than not, especially since we  
01:51:15 13 have an odd number of districts, a  
01:51:17 14 slight Democratic majority, but we  
01:51:20 15 would expect to see the opportunity  
01:51:21 16 for that to flip in a pro Republican  
01:51:28 17 election and we would expect to see  
01:51:30 18 some tight districts in the middle,  
01:51:31 19 and that's what we see here.

01:51:32 20 Q. Is the Carter plan also  
01:51:34 21 responsive to changes in voter  
01:51:39 22 preferences in Pennsylvania?

01:51:40 23 A. I believe because it has, you  
01:51:41 24 know, several districts that are  
01:51:42 25 competitive. And in fact, if I don't

01:51:44 1 use 52 percent, but if I widen that  
01:51:46 2 out a little bit further, we'd see  
01:51:48 3 even more competitive districts. I  
01:51:50 4 described the District in where we're  
01:51:53 5 sitting now, in the Harrisburg area,  
01:51:55 6 as one that could also be potentially  
01:51:57 7 --- could also be potentially  
01:52:00 8 competitive and one that's not  
01:52:01 9 classified as competitive here, but I  
01:52:03 10 think it very well is very close and  
01:52:06 11 could be is one in the western suburbs  
01:52:11 12 of Pittsburgh as well.

01:52:14 13 So there are a number of  
01:52:15 14 competitive districts here where again  
01:52:17 15 a very small shift away from patterns  
01:52:20 16 we've seen in the last couple of  
01:52:22 17 elections toward the Republican party  
01:52:25 18 would --- would yield a number of  
01:52:26 19 seats changing hands. I don't think  
01:52:29 20 there's any --- I don't think that can  
01:52:31 21 be disputed.

01:52:34 22 Q. So you can refer to page ten of  
01:52:38 23 your response report. Based on this  
01:52:44 24 table and pages nine and ten of your  
01:52:47 25 report what about the other pages are

01:52:49 1 there any that stand out to you as  
01:52:51 2 outliers in this analysis pages nine  
01:52:53 3 and ten of your report?  
01:52:57 4 A. I hesitate to call them safe  
01:52:59 5 seats because I don't think that  
01:53:00 6 captures at all what --- what we're  
01:53:02 7 seeing here. But if you look at those  
01:53:05 8 seats that have a Democratic vote  
01:53:07 9 share above 52 percent, we see that  
01:53:12 10 --- you know, a couple of --- some of  
01:53:14 11 them are a bit, you know, lower than  
01:53:17 12 others. We see HB-12146 and the  
01:53:21 13 Reschenthaler plan and the senate  
01:53:25 14 Democratic plan, number one, have that  
01:53:29 15 feature.  
01:53:30 16 We also see that --- we see  
01:53:31 17 differences in the plan with respect  
01:53:32 18 to the number of competitive seats, we  
01:53:35 19 see --- we also see, I think,  
01:53:38 20 especially what stands out about the  
01:53:43 21 Reschenthaler 1 and 2 plans, is they  
01:53:45 22 have a greater number of seats with  
01:53:48 23 statewide Republican vote share above  
01:53:51 24 52 percent. Those are some of the  
01:54:01 25 observations that I --- I made in the

01:54:03 1 report.

01:54:03 2 Q. Are there any other plans that  
01:54:04 3 lean the other way before towards a  
01:54:06 4 Democratic advantage?

01:54:08 5 A. If we look at the --- if we  
01:54:10 6 just look at a very simple way at the  
01:54:12 7 number of --- the number of seats we  
01:54:14 8 see that the house Democratic caucus  
01:54:21 9 plan produces 11 with a share above  
01:54:24 10 50 percent, although I certainly have  
01:54:24 11 more in the bit about how to interpret  
01:54:25 12 those numbers. But that one, you can  
01:54:31 13 just see it's an outlier relative to  
01:54:33 14 the others and that the number is 11  
01:54:35 15 rather than 10.

01:54:36 16 But also when we look at the  
01:54:37 17 --- at the safe --- you know, the more  
01:54:43 18 than 52 percent Republican seats, we  
01:54:46 19 see that that plan also has --- has  
01:54:52 20 won fewer than the others.

01:55:01 21 Q. Did you conduct any other  
01:55:03 22 analyses on the topic of partisanship  
01:55:04 23 in these plans?

01:55:05 24 A. Yes. I was --- I focused at  
01:55:06 25 the end of my report briefly on the

01:55:08 1 difference between the mean and the  
01:55:09 2 median and the distribution of  
01:55:12 3 District level vote shares. So it was  
01:55:15 4 something --- the distribution of  
01:55:17 5 support across districts, I think, is  
01:55:19 6 a useful way for the Court to wade  
01:55:22 7 through all of this, and I presented  
01:55:24 8 some information, some displays about  
01:55:27 9 those distributions and then a simple  
01:55:34 10 summary statistic about those  
01:55:34 11 Districts and those distributions is  
01:55:36 12 to examine the mean and to examine the  
01:55:38 13 median and to look at the difference  
01:55:40 14 between those two.

01:55:41 15 Q. Let's just pull up that table,  
01:55:42 16 it's Table 6 on page 11 of the  
01:55:45 17 response report.

01:55:56 18 Is this the summary statistic  
01:55:58 19 that you were describing?

01:55:59 20 A. Yes.

01:56:02 21 Q. And can you tell us what it  
01:56:05 22 shows?

01:56:05 23 A. Yes. Again, what's happening  
01:56:06 24 here is we're taking those statewide  
01:56:10 25 election results we're aggregating

01:56:13 1 them to the districts of these  
01:56:14 2 proposed plans, and we're doing  
01:56:16 3 something very simple, which is we're  
01:56:17 4 just trying to understand what is the  
01:56:18 5 mean of the expected --- from  
01:56:21 6 statewide vote share, expected  
01:56:25 7 statewide vote share and what is the  
01:56:27 8 median across the districts.

01:56:30 9 And what we see is that in most  
01:56:33 10 of the plans --- again, this is using  
01:56:35 11 data from 2016 to 2020, in most of the  
01:56:39 12 plans the mean and the median are very  
01:56:43 13 similar. We see just trivial  
01:56:46 14 differences between the mean and the  
01:56:48 15 median, which suggests that there  
01:56:50 16 aren't --- that suggests there's not a  
01:56:52 17 pack of districts in the tail of the  
01:56:54 18 distribution where a lot of voters  
01:56:56 19 from one of the parties are focused  
01:56:58 20 and there isn't sort of a nice peak in  
01:57:02 21 the distribution where one of the  
01:57:03 22 parties has an unusual number of  
01:57:06 23 comfortable victories.

01:57:10 24 So we just don't see anything  
01:57:11 25 like that. We see no difference

01:57:13 1 between the mean and the median in  
01:57:15 2 most of the plans. But then there are  
01:57:17 3 some here where we do see a  
01:57:18 4 substantial difference, a difference  
01:57:20 5 of the kind where the median district  
01:57:22 6 is more Republican than the average  
01:57:24 7 across the districts. So it doesn't  
01:57:27 8 necessarily tell us that that's  
01:57:29 9 evidence that someone has been working  
01:57:31 10 to produce districts with a partisan  
01:57:31 11 advantage, but it is interesting that  
01:57:31 12 lots of people sat down and tried to  
01:57:31 13 draw some plans.

01:57:31 14 But a couple of these plans  
01:57:43 15 ended up with a median district that  
01:57:43 16 is more Republican than the average.  
01:57:45 17 And those are the HB-2146 plan, the  
01:57:55 18 Voters of Pennsylvania plan. Those  
01:57:57 19 are the two that really stand out the  
01:57:59 20 most, although if we're looking --- if  
01:57:59 21 we go a little bit further down we can  
01:58:02 22 see that the Citizen Voters plan has a  
01:58:02 23 difference of 1.4 percentage points.  
01:58:02 24 And both of the --- both of the  
01:58:11 25 Reschenthaler plans are around one

01:58:12 1 percent, so --- and everything else is  
01:58:15 2 very close to zero. So that's just  
01:58:18 3 one very, very quick or simple way of  
01:58:20 4 understanding --- just characterizing  
01:58:23 5 the distribution of partisanship  
01:58:39 6 across plans.

01:58:39 7 Q. And so would your conclusion  
01:58:41 8 based on that be that some of those  
01:58:44 9 plans are outliers on partisanship?

01:58:46 10 A. Yes, and it corresponds to the  
01:58:49 11 simpler analysis of just looking at  
01:58:51 12 the number of seats. You know, if we  
01:58:52 13 look at the number of seats produced  
01:58:54 14 in these plans and we think about  
01:58:57 15 realistic scenarios, we take into  
01:58:58 16 account things like incumbency, we  
01:58:58 17 have potential that these plans would  
01:58:58 18 produce counter-majoritarian outcomes  
01:58:58 19 where a 50-percent vote share would  
01:59:07 20 lead to a Republican seat share that  
01:59:08 21 was well above 50 percent.

01:59:12 22 Q. Thank you. Well, we only have  
01:59:14 23 a few minutes left, so I just wanted  
01:59:15 24 to conclude by asking you, you know,  
01:59:18 25 based on what we've talked about



01:59:19 1 today, what --- how does the Carter  
01:59:23 2 plan compare to the other plans that  
01:59:24 3 were --- what are your conclusions,  
01:59:27 4 your summary conclusions, about how  
01:59:28 5 the Carter plan compares to the other  
01:59:30 6 plans that were submitted by the  
01:59:32 7 Court?

01:59:32 8 A. I started by comparing it with  
01:59:34 9 the existing plan and then received a  
01:59:36 10 large stack of plans, which I could  
01:59:38 11 then sort through and see how my plan  
01:59:41 12 compared. And on the whole, I was  
01:59:44 13 very pleased with the way my plan  
01:59:46 14 performed in terms of traditional  
01:59:48 15 redistricting criteria. It looks ---  
01:59:52 16 it looks on some indicators of  
01:59:54 17 compactness very good. On others,  
01:59:58 18 it's sort of in the middle. On county  
01:59:59 19 splits it does very well. On vote  
02:00:02 20 tabulation splits it does very well.  
02:00:04 21 And I think that when it comes to  
02:00:06 22 partisan fairness, it is --- it also  
02:00:10 23 performs very well. And  
02:00:11 24 responsiveness to changing preferences  
02:00:20 25 of Pennsylvania voters, I think it

02:00:20 1 clearly performs well on that  
02:00:23 2 dimension as well.

02:00:27 3 ATTORNEY JASRASARIA:

02:00:28 4 Thank you. That's all  
02:00:29 5 of my questions. I will pass the  
02:00:31 6 witness.

02:00:31 7 JUDGE McCULLOUGH:

02:00:31 8 Okay.

02:00:31 9 We're going to proceed  
02:00:33 10 to Cross Examination now, and the  
02:00:35 11 first one on the list would be  
02:00:37 12 Petitioner Gressman attorney. Do you  
02:00:45 13 have Cross.

02:00:45 14 ATTORNEY RING-AMUNSON:

02:00:57 15 Thank you.

02:00:57 16 ---

02:00:57 17 CROSS EXAMINATION

02:00:57 18 ---

02:00:58 19 BY ATTORNEY RING-AMUNSON:

02:00:58 20 Q. Good morning, Doctor Rodden.

02:00:58 21 It's nice to see you. I'm Jessie

02:01:01 22 Amunson, and I represent the Gressman

02:01:02 23 Math and Science Petitioners.

02:01:04 24 A. Good morning.

02:01:04 25 Q. I have just a few questions for

02:01:05 1 you this morning. In your analysis of  
02:01:10 2 which plan has the least amount of  
02:01:12 3 change as compared to the 2018  
02:01:14 4 remedial plan, did you consider how  
02:01:16 5 improving on the 2018 mapped  
02:01:19 6 performance with respect to the  
02:01:20 7 various criteria, for example, respect  
02:01:23 8 for political subdivisions, would  
02:01:25 9 affect the numbers that you report on  
02:01:26 10 retained population share?

02:01:31 11 A. That would involve me trying to  
02:01:34 12 make some different kind of map that  
02:01:40 13 --- the question, if I understand it  
02:01:42 14 correctly, is is there a trade-off  
02:01:44 15 between trying to achieve overlap and  
02:01:51 16 --- was the question about splits in  
02:01:54 17 particular or --- let me make sure I  
02:01:57 18 just understand the question.

02:01:57 19 Q. Yes. So let me rephrase it.  
02:01:59 20 So would you agree that if a party  
02:02:01 21 prioritized compliance with, for  
02:02:05 22 example, respect for the political  
02:02:05 23 subdivisions to keep even more  
02:02:05 24 political subdivisions intact than the  
02:02:05 25 2018 plan, that would impact the least

02:02:05 1 changed metrics that you report?

02:02:18 2 A. I don't think so. I think on  
02:02:19 3 county splits I was already --- I was  
02:02:19 4 already I think as low as any of us  
02:02:22 5 will get. And then so were there  
02:02:24 6 instances of municipal splits that I  
02:02:27 7 had to make because I was in this kind  
02:02:29 8 of straightjacket of the initial plan?

02:02:32 9 No, because it wasn't a  
02:02:34 10 straightjacket. You would see that I  
02:02:36 11 did have to make changes. So did ---  
02:02:38 12 did the attempt to minimize the  
02:02:44 13 changes from the existing plan force  
02:02:47 14 me into unwanted splits, I don't  
02:02:49 15 recall any situations like that.

02:02:51 16 Q. So if I told you that with  
02:02:54 17 respect to the specific constitutional  
02:02:57 18 criteria, the six political  
02:02:59 19 subdivisions that are enumerated in  
02:03:02 20 the Constitution, which are counties,  
02:03:03 21 cities, incorporated towns, boroughs,  
02:03:07 22 townships and wards, if I told you  
02:03:10 23 that the 2018 plan split 72 of them  
02:03:15 24 and the Gressman plan split only 49 of  
02:03:20 25 them, would you expect that the

02:03:22 1 Gressman plan's choice not to split  
02:03:24 2 political subdivisions would impact  
02:03:27 3 the least changed metrics that you  
02:03:30 4 report?

02:03:31 5 A. It would be an analysis I would  
02:03:33 6 have to do. It's not clear to me that  
02:03:39 7 --- I think you're implying there's a  
02:03:40 8 trade-off, and I'm not --- without  
02:03:42 9 doing some analysis, I'm not ready to  
02:03:45 10 --- to agree that that trade-off is  
02:03:47 11 strong or that it's there at all. I'm  
02:03:50 12 just not sure.

02:03:51 13 Q. So if you --- if you are  
02:03:52 14 attempting to actually improve on the  
02:03:54 15 constitutional criteria --- you  
02:03:56 16 reported on counties, but there are  
02:03:58 17 actually six different political  
02:04:01 18 subdivisions in the Constitution. And  
02:04:02 19 if you tried to maximize compliance on  
02:04:05 20 keeping all of them whole, not  
02:04:08 21 dividing any of them more than  
02:04:11 22 absolutely necessary, would you expect  
02:04:12 23 to see some actual trade-off with the  
02:04:14 24 least change metrics?

02:04:17 25 A. Well, I think we should not

02:04:22 1 lump all these different counties ---  
02:04:25 2 these entities smaller than a county  
02:04:26 3 into one bucket. I should be clear  
02:04:29 4 that I paid attention to county  
02:04:30 5 subdivisions when I was --- when I was  
02:04:32 6 working. There are a variety of other  
02:04:35 7 jurisdictions like --- like wards and  
02:04:38 8 census designated places and other  
02:04:41 9 things that I was not --- I was not  
02:04:43 10 focusing on in my analysis. So if I  
02:04:46 11 came to this with the approach that  
02:04:48 12 I'm going to minimize the split of  
02:04:52 13 census designated places, would that  
02:04:55 14 approach yield a different number in  
02:04:59 15 terms of retained population, it  
02:05:03 16 probably would.

02:05:04 17 Q. And you mentioned wards, for  
02:05:07 18 example, is not something that you  
02:05:08 19 were looking at, but wards is one of  
02:05:10 20 the six subdivisions that are  
02:05:13 21 specifically enumerated in the  
02:05:15 22 Pennsylvania Constitution.

02:05:16 23 Correct?

02:05:17 24 A. That's right, wards were not  
02:05:19 25 something I focused on.

02:05:20 1 Q. And you also mentioned that you  
02:05:23 2 did focus on keeping VTDs, Voter  
02:05:31 3 Tabulation Districts, together, but  
02:05:31 4 those are not one of the six political  
02:05:32 5 subdivisions that the Pennsylvania  
02:05:34 6 Constitution prioritizes not dividing  
02:05:36 7 more than absolutely necessary.

02:05:38 8 Correct?

02:05:38 9 A. That's correct.

02:05:39 10 Q. And can you just tell me the  
02:05:48 11 least change approach that you  
02:05:50 12 reported on as measured by retained  
02:05:53 13 population share, are you aware of any  
02:05:54 14 Court using that whereas here the  
02:05:56 15 number of districts has changed from  
02:05:58 16 the old plan to the new?

02:06:00 17 A. I don't have enough knowledge  
02:06:03 18 of Court cases to be able to answer  
02:06:04 19 that question. I'm not aware of any.

02:06:09 20 ATTORNEY RING-AMUNSON:

02:06:10 21 Thank you. I have no  
02:06:11 22 further questions.

02:06:11 23 JUDGE McCULLOUGH:

02:06:11 24 Thank you, Counsel.

02:06:17 25 Attorney for Secretary Chapman, is

02:06:18 1 there any Cross? Or are you crossing  
02:06:21 2 for Governor Wolf.

3 ATTORNEY WIYGUL:

4 I think primarily, Your  
5 Honor, I'll be appearing for the  
6 Governor. Thank you.

7 ---

8 CROSS EXAMINATION

9 ---

02:06:35 10 BY ATTORNEY WIYGUL:

11 Q. Good afternoon, Doctor Rodden.

12 COURT REPORTER:

13 I'm so sorry, what's  
14 your name.

15 ATTORNEY WIYGUL:

16 Robert Wiygul on behalf  
17 of Governor Wolf.

18 BY ATTORNEY WIYGUL:

19 Q. You've showed during your  
20 Direct Examination some scoring you  
02:06:37 21 had done of mean median metrics and  
02:06:40 22 also number of seats.

02:06:41 23 Do you recall that?

02:06:42 24 A. Yes.

02:06:42 25 Q. And that was based on your



02:06:45 1 analysis of the results of a certain  
02:06:47 2 number of statewide elections.

02:06:49 3 Is that right?

02:06:49 4 A. Yes.

02:06:50 5 Q. How many, again, elections did  
02:06:52 6 you look at?

02:06:53 7 A. I looked at all of the  
02:06:54 8 statewide elections from 2016 to 2020.

02:06:57 9 Q. And just to be clear, was the  
02:07:00 10 scoring you did with respect to mean,  
02:07:02 11 median and number of seats, was that  
02:07:03 12 based on an average of those election  
02:07:06 13 results?

02:07:06 14 A. Yes.

02:07:10 15 ATTORNEY WIYGUL:

02:07:10 16 Thank you.

02:07:15 17 JUDGE McCULLOUGH:

18 That was fast. Counsel  
19 for --- excuse me, Representative  
20 Cutler's group, is that going first.

21 Okay.

22 ---

23 CROSS EXAMINATION

02:08:05 24 ---

02:08:05 25 BY ATTORNEY LEWIS:

02:08:05 1 Q. Good morning, Doctor Rodden.  
02:08:06 2 My name is Patrick Lewis. I represent  
02:08:09 3 Speaker Cutler and Leader Benninghoff  
02:08:10 4 of the Pennsylvania House of  
02:08:11 5 Representatives.

02:08:15 6 Doctor Rodden, would you agree  
02:08:17 7 that House Bill --- would you agree  
02:08:25 8 that House Bill 2146 complies --- or  
02:08:28 9 excuse me, is within the narrow band  
02:08:29 10 with all the other plans that you  
02:08:31 11 considered with respect to the  
02:08:31 12 traditional districting criteria of  
02:08:34 13 equal population, contiguity with  
02:08:39 14 respect to county, municipal and  
02:08:41 15 precinct splits as well as  
02:08:43 16 compactness?

02:09:04 17 ATTORNEY SENOFF:  
02:09:05 18 Objection to the form of  
02:09:07 19 the question, compound.

20 JUDGE MCCULLOUGH:  
21 Counsel, I can't  
22 understand.

23 ATTORNEY SENOFF:  
24 It's a compound  
25 question.

1 JUDGE MCCULLOUGH:

2 Hold on one second.

3 Okay. I think she's saying would you  
4 say your name when you stand up,  
5 please.

6 ATTORNEY SENOFF:

7 Certainly Your Honor.  
8 David Senoff. Objection to the form  
9 of the question and the nature of a  
10 compound question.

02:09:08

11 JUDGE MCCULLOUGH:

02:09:08

12 Your response? Do you  
13 have a response to the objection.

02:09:13

02:09:14

14 ATTORNEY LEWIS:

02:09:16

15 I mean, Your Honor, I  
16 think we have all been referring to  
17 the criteria collectively. I don't  
18 believe it's ---.

02:09:16

02:09:17

02:09:19

02:09:22

19 JUDGE McCULLOUGH:

02:09:22

20 I agree so overruled.

02:09:22

21 THE WITNESS:

02:09:22

22 Would you mind just  
23 repeating the question?

02:09:25

02:09:26

24 BY ATTORNEY LEWIS:

02:09:29

25 Q. Doctor Rodden, would you agree

02:09:30

02:09:31 1 that House Bill 2146 is in the same  
02:09:33 2 narrow band with the other plans with  
02:09:36 3 respect to the traditional criteria of  
02:09:38 4 equal population, contiguity with  
02:09:41 5 respect to county, municipal and  
02:09:48 6 precinct splits and compactness?  
02:09:50 7 A. That is a --- there are --- I  
02:09:50 8 analyzed a lot of plans and there's a  
02:09:53 9 lot of --- lot of different indicators  
02:09:54 10 that you mentioned. So I think I  
02:09:58 11 would be remiss in not looking at my  
02:10:02 12 report and make sure I give an  
02:10:06 13 accurate answer, but it is --- when it  
02:10:08 14 comes to total county splits, it is  
02:10:12 15 one of the --- one of the plans with  
02:10:15 16 one of the higher numbers. But when  
02:10:20 17 it comes to --- to VTD splits, it is  
02:10:27 18 --- it is relatively low. And I don't  
02:10:40 19 recall --- I don't have a specific  
02:10:42 20 recollection about compactness, but I  
02:10:42 21 believe it was --- I believe I  
02:10:42 22 characterized in my report that all of  
02:10:42 23 the plans were in a relatively narrow  
02:10:49 24 band, and so I would put it in that  
02:10:50 25 category all the plans, so yes.

02:10:57 1 Q. Thank you. I'd like to now  
02:10:59 2 direct your attention to page four of  
02:11:01 3 your rebuttal report. Give me one  
02:11:03 4 second here to get it up on the  
02:11:05 5 screen. And this is your list of ---  
02:11:06 6 this Table 2 this is your list of  
02:11:10 7 county splits and then total county  
02:11:11 8 lists in the plans.

02:11:17 9 Is that right?

02:11:17 10 A. Yes.

02:11:18 11 Q. Okay.

02:11:18 12 In here you show the Carter  
02:11:26 13 plan as having 14 splits and House  
02:11:31 14 Bill 2146 as having 15?

02:11:33 15 Correct? Split counties I  
02:11:33 16 should ---.

02:11:33 17 A. Yes. And I think I'd already  
02:11:34 18 like to amend my answer to your  
02:11:36 19 previous question. I realize I was  
02:11:38 20 looking at the wrong table. I think I  
02:11:40 21 gave an answer a moment ago that was  
02:11:43 22 not correct about --- about county  
02:11:44 23 splits. I was looking at a different  
02:11:45 24 table so I take back the earlier ---  
02:11:50 25 earlier comment that it was high on

02:11:51 1 the total number of county splits.

02:11:57 2 Q. Okay.

02:11:59 3 Now, you do identify --- okay.

02:12:12 4 We can move on from there.

02:12:14 5 Now, we go to Table 3, and this

02:12:14 6 is what you call your county

02:12:14 7 subdivision splits. Those are your

02:12:14 8 municipalities, your cities, your

02:12:14 9 townships.

02:12:22 10 Correct?

02:12:22 11 A. Yes.

02:12:23 12 Q. Okay.

02:12:23 13 And here you've identified that

02:12:24 14 House Bill 2146 has four less split

02:12:28 15 county subdivisions than the Carter

02:12:30 16 plan.

02:12:31 17 Is that right?

02:12:34 18 A. Yeah, this is the one that I

02:12:35 19 was --- I misspoke about a moment ago.

02:12:38 20 It is relatively low on the ---

02:12:41 21 relative to the Carter plan on the

02:12:42 22 number of split subdivisions, but on

02:12:44 23 the total splits it's --- it's a bit

02:12:48 24 higher.

02:12:53 25 Q. Okay.

02:12:54 1 Now, I will represent to you  
02:12:55 2 I'm going to put up on the screen what  
02:12:56 3 has been attached to our opening ---  
02:12:56 4 Republican Intervenor Respondents  
02:13:04 5 opening brief at Exhibit I and  
02:13:04 6 sub-Exhibit 1 And this is a report,  
02:13:10 7 Doctor Rodden, generated by the  
02:13:15 8 Legislative Data Processing Center for  
02:13:16 9 HB-2146. And I'm going to direct you  
02:13:19 10 to what I believe is page 12.

02:13:21 11 Unfortunately, these are not  
02:13:23 12 numbered pages, but this is a report  
02:13:29 13 identifying the number of places  
02:13:32 14 within counties where there are splits  
02:13:33 15 in the plan. Let me zoom this out for  
02:13:36 16 you so you can see the whole page.  
02:13:38 17 Let me know if you can't read this.

02:13:39 18 A. It's very hard to read, but I  
02:13:43 19 think we might just ---.

02:13:45 20 Q. We'll do our best. All right.  
02:13:48 21 I'll zoom in if you need me to, Doctor  
02:13:49 22 Rodden.

02:13:49 23 Now, you computed us as having  
02:13:55 24 25 total municipal splits in your  
02:13:55 25 report.

02:13:56 1 Is that right?

02:13:57 2 A. These are county subdivisions.

02:13:59 3 That's a specific category that the

02:14:01 4 census puts together. So it doesn't

02:14:05 5 --- it's different than the census

02:14:07 6 place, it's different from --- there

02:14:08 7 are lots of different municipal

02:14:10 8 terminologies that we might be using.

02:14:13 9 That one was county subdivisions.

02:14:15 10 Q. Okay.

02:14:16 11 So that split could be

02:14:17 12 something then other than just

02:14:19 13 splitting a city line or splitting a

02:14:21 14 township line. Is that what you're

02:14:22 15 saying?

02:14:22 16 A. Well, it's just that the

02:14:25 17 townships are --- they are census ---

02:14:28 18 they are county subdivisions, but

02:14:31 19 there are --- but there are other

02:14:32 20 things that are also county

02:14:33 21 subdivisions that are not townships.

02:14:36 22 So it's just possible that we're

02:14:38 23 talking about --- I just want to make

02:14:41 24 sure we're talking about the same

02:14:43 25 census geography.



02:14:45 1 Q. Okay.

02:14:45 2 Well, you can see here that  
02:14:46 3 this reports a city, the City of  
02:14:49 4 Philadelphia, it has townships, it has  
02:14:56 5 boroughs on it.

02:14:57 6 Right?

02:14:57 7 A. Yes.

02:14:57 8 Q. Okay.

02:14:58 9 And it actually identifies  
02:15:00 10 exactly which political subdivisions  
02:15:03 11 are split and how many times.

02:15:04 12 Correct?

02:15:05 13 A. Yes.

02:15:05 14 Q. Okay.

02:15:09 15 And it tabulates 18 total  
02:15:11 16 splits of the 16 political  
02:15:13 17 subdivisions.

02:15:14 18 Correct?

02:15:23 19 A. Again, I would want to make  
02:15:25 20 sure I understand what is being  
02:15:27 21 considered as a subdivision. This is  
02:15:29 22 something that's hard for me to --- if  
02:15:32 23 there's a slight discrepancy, it's ---  
02:15:34 24 it's probably due to something like  
02:15:36 25 that.

02:15:36 1 Q. Okay. We can --- we can move  
02:15:38 2 on, Doctor Rodden.

02:15:41 3 I would like now to turn to  
02:15:43 4 your analysis of --- briefly of  
02:15:44 5 partisan fairness. And specifically,  
02:15:52 6 we're going to go to that Table 5 in  
02:15:55 7 your rebuttal report. I believe it's  
02:15:57 8 on page nine. Here we are. Okay.  
02:16:08 9 Now, just as a matter of mathematics,  
02:16:11 10 if a party wins 9 out of 17  
02:16:15 11 congressional districts, that would be  
02:16:17 12 about 52.9 percent of the seats.

02:16:20 13 Right?

02:16:20 14 A. Yes.

02:16:20 15 Q. Okay.

02:16:20 16 And if a party wins 10 out of  
02:16:24 17 17 seats, that would be about 58.8  
02:16:24 18 percent.

02:16:28 19 Correct?

02:16:28 20 A. That's right.

02:16:29 21 Q. Okay.

02:16:29 22 And again, you've calculated  
02:16:30 23 using your election index, about 52  
02:16:30 24 percent Democratic statewide vote  
02:16:30 25 share.

02:16:39 1 Is that right?

02:16:39 2 A. That's one of the things that  
02:16:41 3 it displays, yes.

02:16:43 4 Q. Okay.

02:16:48 5 Now, you identified that the  
02:16:50 6 Carter plan has ten Democratic leaning  
02:16:54 7 districts, of which two are --- you  
02:16:57 8 would call these are your really  
02:16:59 9 competitive, I heard you call coin  
02:17:03 10 toss, razor's edge districts, is that  
02:17:08 11 right, the two there?

02:17:09 12 A. Yes.

02:17:09 13 Q. Okay.

02:17:09 14 And those districts, as I  
02:17:11 15 recall, those districts could flip to  
02:17:13 16 Republicans under the right election  
02:17:17 17 circumstances.

02:17:19 18 Right?

02:17:20 19 A. Yes.

02:17:20 20 Q. Okay.

02:17:21 21 So for the House Bill 2146  
02:17:24 22 plan, you have one Democratic razor's  
02:17:27 23 edge district and you have two  
02:17:29 24 Republican razor's edge districts, do  
02:17:33 25 you not?

02:17:33 1 A. Yes.

02:17:33 2 Q. Okay.

02:17:34 3 So in fact, under a favorable  
02:17:36 4 election environment for Democrats,  
02:17:39 5 House Bill 2146 could also yield 10  
02:17:46 6 Democratic seats, couldn't it?

02:17:46 7 A. I just want to make sure I'm  
02:17:48 8 looking at the right thing. So you're  
02:17:48 9 looking at the eight plus ---?

02:17:52 10 Q. Yes. Here. If I highlight it,  
11 it won't work out well for either of  
12 us, so ---.

13 A. But ---.

14 Q. Right here in the middle.  
15 Seven, plus one plus two is 10.  
16 Right?

02:18:18 17 A. Yes, with the caveat that I  
02:18:19 18 made earlier about District 1 that I  
02:18:21 19 think is worth considering.

02:18:30 20 Q. And in fact, when you look at  
02:18:32 21 these razor's edge districts, do you  
02:18:36 22 identify a single plan on here with  
02:18:39 23 more than three of those razor's edge,  
02:18:45 24 coin toss districts?

02:18:47 25 A. Does any have --- more than

02:18:47 1 three if we add the two --- the two  
02:18:49 2 --- those two middle columns together?  
02:18:51 3 Q. That's correct.  
02:18:53 4 A. No, I don't believe so.  
02:18:54 5 Q. All right.  
02:18:59 6 Now, you've spoken generally,  
02:19:02 7 Doctor Rodden, about describing some  
02:19:04 8 of the plans, including House Bill  
02:19:06 9 2146, as outliers. Do you recall that  
02:19:10 10 testimony?  
02:19:11 11 A. Yes.  
02:19:11 12 Q. Outliers compared to what,  
02:19:12 13 Doctor Rodden?  
02:19:16 14 A. The other plans submitted in  
02:19:17 15 this process.  
02:19:18 16 Q. Okay.  
02:19:26 17 Now, you and Professor Jowei  
02:19:26 18 Chen have written several articles  
02:19:30 19 talking about the use of simulations  
02:19:33 20 methodologies to measure partisan  
02:19:38 21 fairness in the plan.  
02:19:39 22 Is that right?  
02:19:40 23 A. Yes.  
02:19:40 24 Q. And in fact, your article,  
02:19:40 25 Unintentional Gerrymandering, is sort

02:19:47 1 of routinely cited as a lead  
02:19:47 2 publication in that field, is it not?

02:19:50 3 A. The effort we made in that ---  
02:19:53 4 in that --- in that article was to run  
02:19:54 5 simulations to try to get a sense of  
02:19:56 6 what the predicted seat chairs would  
02:19:58 7 be from the simulations, and that  
02:19:59 8 gives us something to contrast with  
02:20:01 9 what we see in reality.

02:20:03 10 Q. Yet you didn't perform a  
02:20:06 11 simulations analysis in this case, did  
02:20:08 12 you?

02:20:09 13 A. This is a --- this is a  
02:20:10 14 technique that's used to identify  
02:20:13 15 gerrymandering and to understand some  
02:20:17 16 aspects of political geography. This  
02:20:19 17 is a case in which I was asked to draw  
02:20:20 18 a --- draw a plan and evaluate its  
02:20:23 19 fairness, so it didn't occur to me  
02:20:25 20 that drawing a 100,000 other plans was  
02:20:31 21 something that I should do.

02:20:32 22 Q. But it's within your technical  
02:20:34 23 capability to conduct a simulations  
02:20:38 24 analysis if you wanted to?

02:20:39 25 A. Yes.

02:20:39 1 Q. Okay.

02:20:40 2 Now, you described HB-2146 as  
02:20:43 3 an outlier because I believe it was  
02:20:45 4 not aligned with that state vote share  
02:20:48 5 you indicated what produced a counter  
02:20:50 6 majority outcome.

02:20:53 7 Right?

02:20:55 8 A. Yes.

02:20:55 9 Q. All right.

02:20:57 10 And that's because you would  
02:20:59 11 expect a plan --- again, with that  
02:21:02 12 52 percent statewide vote share for  
02:21:05 13 Democrats, you would expect the plan  
02:21:07 14 to have about nine Democratic leaning  
02:21:10 15 districts, and yet you have on your  
02:21:12 16 report here that HB-2146 generates  
02:21:15 17 eight.

02:21:16 18 Correct?

02:21:16 19 A. I'm sorry. Would you repeat  
02:21:18 20 the question?

02:21:19 21 Q. Sure. So the basis for you  
02:21:21 22 claiming HB-2146 as an outlier here is  
02:21:27 23 that it generates eight expected  
02:21:29 24 Democratic seats under your analysis.

02:21:31 25 Right?

02:21:32 1 A. I think that, yeah, that was an  
02:21:34 2 answer to a specific question in the  
02:21:35 3 previous testimony.

02:21:36 4 Q. And if that's the case, why is  
02:21:37 5 the ten seats in Carter not equally an  
02:21:43 6 outlier?

02:21:43 7 A. Well, again, I was just ---  
02:21:44 8 this relates to an earlier question.  
02:21:46 9 I was just answering a specific  
02:21:48 10 question about the plans that I  
02:21:49 11 received and just characterizing the  
02:21:55 12 distribution of those plans. I was  
02:21:56 13 not --- I was not suggesting it is an  
02:21:59 14 outlier relative to some other  
02:22:01 15 distribution, just what's on the  
02:22:03 16 table.

02:22:04 17 Q. Now, you testified that you  
02:22:05 18 were not aware of who the different  
02:22:07 19 groups were here who submitted the 14  
02:22:13 20 plans?

02:22:13 21 A. That's correct.

02:22:13 22 Q. So you didn't know who Governor  
02:22:13 23 Wolf was?

02:22:14 24 A. I did know who Governor Wolf  
02:22:17 25 was, yes.



02:22:17 1 Q. And you knew HB-2146 were my  
02:22:21 2 clients.

02:22:21 3 Right?

02:22:22 4 A. I believe it was actually  
02:22:24 5 marked in my --- the name given to the  
02:22:27 6 file. I eventually put HB-2146 on the  
02:22:31 7 tables at the last minute because it  
02:22:34 8 looked ugly to have the name that was  
02:22:38 9 on there which was I believe some  
02:22:39 10 names of individuals. So when I was  
02:22:41 11 doing the analysis, I was not aware  
02:22:43 12 that this was a plan that had been  
02:22:46 13 submitted to the legislature, but I am  
02:22:51 14 now. And when finalizing the report,  
02:22:52 15 I became aware of that.

02:22:56 16 ATTORNEY LEWIS:

02:22:56 17 I have nothing further.

02:22:58 18 Thank you.

02:22:58 19 JUDGE McCULLOUGH:

02:22:58 20 Okay.

02:23:07 21 Thank you, Counsel. And  
02:23:07 22 then we will move to Congressional  
02:23:07 23 Intervenors, Congressman  
02:23:12 24 Reschenthaler, et al.

02:23:14 25 ATTORNEY GORDON:

02:23:16 1 I'll alert Court staff  
02:23:17 2 up front, I may briefly need to use  
02:23:18 3 that also, so if I could get that  
02:23:21 4 fired up, that would be helpful.

02:23:21 5 ---

02:23:21 6 CROSS EXAMINATION

02:23:23 7 ---

02:23:23 8 BY ATTORNEY GORDON:

02:23:24 9 Q. Good afternoon.

02:23:25 10 A. Good afternoon. We're just  
02:23:26 11 past noon. So I represent the  
02:23:29 12 Congressional Intervenors for the  
02:23:30 13 Reschenthaler Maps 1 and 2. So I'll  
02:23:33 14 give you an easy one here. Of all the  
02:23:36 15 maps you looked at, which one is the  
02:23:39 16 best one, in your opinion?

02:23:40 17 A. Of course I have to say that I  
02:23:42 18 like my map. I spent a lot of time on  
02:23:46 19 it, so it's unlikely I'll give any  
02:23:53 20 other answer.

02:23:53 21 Q. I suspected that's what you  
02:23:53 22 would answer. And you, in fact, drew  
02:23:54 23 that map yourself?

02:23:54 24 A. Yes.

02:23:55 25 Q. Is it the only one you drew?

02:23:57 1 A. In this --- in this case?

02:23:58 2 Q. In this case.

02:23:59 3 A. Yes.

02:24:00 4 Q. Very good.

02:24:00 5 So I want to run you through

02:24:02 6 your response report for the most

02:24:04 7 part. So I'll flip to page two. You

02:24:07 8 got Table 1 there, retain share

02:24:10 9 population. I'll skip down to

02:24:10 10 Reschenthaler 1. In fact, this is

02:24:14 11 just kind of an omnibus question for

02:24:15 12 all of the stats in your response

02:24:17 13 report. You're very --- what is your

02:24:17 14 level of confidence in these numbers?

02:24:20 15 A. In the --- in the population

02:24:22 16 overlap numbers I believe these are

02:24:25 17 --- these are correct. I don't think

02:24:26 18 there's a lot of room for trouble

02:24:30 19 there.

02:24:31 20 Q. Sure. And in fact, in all of

02:24:32 21 the numbers in your report, is it safe

02:24:35 22 to say you're confident in their

02:24:37 23 accuracy?

02:24:40 24 A. Yes. I will --- I will

02:24:42 25 stipulate that this is a calendar

02:24:44 1 under which I've never had to work  
02:24:46 2 before. I had --- I had one day to  
02:24:48 3 look at the maps, a day during which I  
02:24:51 4 had some faculty meetings and other  
02:24:53 5 things. So I am confident because I  
02:24:55 6 think the techniques I used make me  
02:24:59 7 confident.

02:25:00 8 Q. Very good. So as it concerns  
02:25:02 9 this chart, 76 and a half, 76 and a  
02:25:06 10 half, Reschenthaler 1, Reschenthaler  
02:25:09 11 2, you're confident those numbers are  
02:25:09 12 correct?

02:25:11 13 A. I am.

02:25:11 14 Q. Okay.

02:25:11 15 And on page three of your  
02:25:13 16 report, at the top you make a  
02:25:14 17 conclusion about population equality  
02:25:14 18 and you say each of these plans --- in  
02:25:14 19 each of these population as close to  
02:25:22 20 as equal as is possible given the  
02:25:22 21 constraints of the data. Do you still  
02:25:24 22 agree with that statement?

02:25:25 23 A. Yes.

02:25:25 24 Q. And that includes the  
02:25:27 25 Reschenthaler 1 and Reschenthaler 2

02:25:29 1 plans?

02:25:29 2 A. Yes.

02:25:29 3 Q. And then continuity ---

02:25:32 4 contiguity, I'm the first one to

02:25:32 5 fumble it, but I guarantee I won't be

02:25:37 6 the last, you agree that the

02:25:38 7 Reschenthaler 1 and 2 maps meet the

02:25:42 8 contiguity standard?

02:25:43 9 A. I do.

02:25:44 10 Q. Very good. And at the

02:25:46 11 conclusion or compactness section you

02:25:49 12 say none of the submitted plans

02:25:52 13 features high non-compact districts of

02:25:55 14 ten --- clause and the like. Would

02:25:55 15 you agree that's true about

02:25:57 16 Reschenthaler 1 and Reschenthaler 2?

02:26:00 17 A. Yes, I would.

02:26:01 18 Q. Okay. Very good.

02:26:02 19 So I want to flip to Table 2.

02:26:07 20 You list the split counties and you

02:26:09 21 show Reschenthaler 1 at 13 and

02:26:12 22 Reschenthaler 2 at 13. Do you see

02:26:13 23 where I'm looking there?

02:26:17 24 A. Yes.

02:26:17 25 Q. And you believe that's correct?

02:26:18 1 A. I do believe so.

02:26:19 2 Q. Okay.

02:26:20 3 And would you agree with me  
02:26:21 4 that's the lowest number of split  
02:26:23 5 counties in all the maps you reviewed?

02:26:27 6 A. Yes. When we define it as just  
02:26:30 7 whether or not the county is split,  
02:26:32 8 that's correct, 13 is the lowest  
02:26:33 9 number we see in this table.

02:26:35 10 Q. Correct. And what I don't see  
02:26:36 11 in your chart is something that I do  
02:26:37 12 see in some of the other reports. It  
02:26:39 13 talks about segments. Are you  
02:26:40 14 familiar with what segment are?

02:26:44 15 A. That is --- that's I believe  
02:26:47 16 what I'm doing in the second column.

02:26:48 17 Q. Well, I think it might be a  
02:26:50 18 little bit different, so let me  
02:26:52 19 explain what I'm asking when I say  
02:26:54 20 segment. So if we had a rectangle and  
02:26:56 21 we cut it in half once, it's got two  
02:26:56 22 segments. If we split one of the  
02:27:00 23 halves in half, now it's got three  
02:27:01 24 segments. Do you see what I'm  
02:27:01 25 referring to?

02:27:02 1 A. Larger numbers if we just  
02:27:03 2 counted up all the segments.  
02:27:04 3 Q. Right.  
02:27:04 4 Well, would you agree that the Carter  
02:27:06 5 map produces 31 county segments? And  
02:27:22 6 if the you can't recall ---.  
02:27:22 7 A. A little bit, but this is not  
02:27:22 8 --- this is not a statistic that I ---  
02:27:23 9 that I included.  
02:27:23 10 Q. Fair enough. The Governor's  
02:27:25 11 expert testifies in her report, and  
02:27:27 12 she'll testify on the stand, that you  
02:27:28 13 have 31 segments. So I suspect you  
02:27:32 14 don't know whether it's true or not if  
02:27:37 15 the Reschenthaler 1 and 2 have 29  
02:27:39 16 segments?  
02:27:41 17 A. I do not. That's not an  
02:27:41 18 analysis that I conducted.  
02:27:41 19 Q. Well, let me ask you this. Do  
02:27:44 20 you agree that a 17-district, compact,  
02:27:51 21 contiguous and equal population map  
02:27:51 22 can be drawn with just 13 split  
02:27:54 23 counties?  
02:27:56 24 A. Yes, I believe that  
02:28:01 25 characterizes this --- this map.

02:28:02 1 Q. Okay. Let's jump ahead to  
02:28:05 2 page five.  
02:28:05 3 Briefly in figure one I believe  
02:28:09 4 you have Reschenthaler 1 and  
02:28:11 5 Reschenthaler 2, if I'm reading this  
02:28:13 6 correctly, and a REOC score around  
02:28:15 7 approximately .42 for Reschenthaler 2  
02:28:18 8 and .41 for Reschenthaler 1. Is that  
02:28:20 9 --- is that what that chart reflects?  
02:28:23 10 A. It might be more like .42 and  
02:28:26 11 .43.  
02:28:27 12 Q. Fair enough.  
02:28:28 13 A. Yeah.  
02:28:28 14 Q. And you believe those numbers  
02:28:29 15 to be correct to the best of your  
02:28:31 16 professional degree of certainty?  
02:28:33 17 A. Yes.  
02:28:33 18 Q. Okay. Very good. All right.  
02:28:37 19 Let's look at Table 3, number  
02:28:38 20 of split county subdivisions. And  
02:28:40 21 when you say subdivisions, is that  
02:28:42 22 municipalities, townships, boroughs,  
02:28:47 23 cities, et cetera?  
02:28:48 24 A. This is the census category  
02:28:48 25 called county subdivisions, and so I



02:28:52 1 believe there are --- as I was saying  
02:28:53 2 earlier, there are some other  
02:28:55 3 categorizations that would give us  
02:28:58 4 larger numbers that include some other  
02:29:01 5 kinds of entities like  
02:29:03 6 census-designated places and things  
02:29:05 7 like that.

02:29:05 8 Q. Sure.

02:29:06 9 A. This is just this one category.

02:29:08 10 Q. So these are smaller than a  
02:29:13 11 county, bigger than a ward?

02:29:14 12 A. Yes, I believe that --- that  
02:29:15 13 captures it, although I'm not entirely  
02:29:17 14 sure.

02:29:18 15 Q. Okay.

02:29:18 16 Well, if you look at  
02:29:19 17 Reschenthaler 1 and Reschenthaler 2,  
02:29:21 18 you show them at 15 county subdivision  
02:29:24 19 splits. Are you confident that those  
02:29:27 20 numbers are correct?

02:29:28 21 A. Based on the analysis I did,  
02:29:29 22 yes.

02:29:29 23 Q. And here I would ask is that  
02:29:31 24 the lowest number of splits, but I  
02:29:33 25 show you have CCFD at 14.

02:29:38 1 Is that correct? That's number  
02:29:38 2 two?  
02:29:38 3 A. Yes.  
02:29:39 4 Q. Now, this is something you  
02:29:41 5 probably don't know, but late  
02:29:43 6 yesterday the Court entered an Order  
02:29:45 7 discarding the CCFD map as being  
02:29:49 8 untimely filed. So if you accept my  
02:29:52 9 representation that that map is no  
02:29:53 10 longer before the Court, would you  
02:29:54 11 agree that 15 is the lowest of the  
02:29:56 12 remaining maps?  
02:29:57 13 A. Yes.  
02:29:57 14 Q. Okay.  
02:30:01 15 So do you agree that a  
02:30:01 16 17-district congressional map that is  
02:30:03 17 both compact, contiguous and equal  
02:30:08 18 population can be drawn with just 15  
02:30:11 19 county subdivision splits?  
02:30:13 20 A. Yes.  
02:30:22 21 Q. Just quickly on page six, Table  
02:30:25 22 4, VTDs, are they bigger or smaller  
02:30:28 23 than a ward, if you know?  
02:30:29 24 A. Smaller.  
02:30:29 25 Q. Smaller. All right.

02:30:34 1 Page 9, Table 5, so  
02:30:40 2 Reschenthaler 1 and 2, you have ---  
02:30:42 3 I'm going to look at the extreme  
02:30:42 4 columns, as in on either end. So you  
02:30:42 5 show the Carter map as ten and that  
02:30:42 6 Democrat vote share greater than .5.  
02:30:54 7 And then you show Reschenthaler 1 as 9  
02:30:56 8 and Reschenthaler 2 as nine.

02:30:58 9 Is that correct?

02:30:58 10 A. Yes.

02:30:58 11 Q. And that's a difference of just  
02:31:01 12 one?

02:31:01 13 A. Yes.

02:31:01 14 Q. One seat out of 17?

02:31:04 15 A. Yes.

02:31:04 16 Q. Okay.

02:31:05 17 And then we'll go to the  
02:31:06 18 extreme far right column, same column  
02:31:09 19 where you amended the heading here in  
02:31:11 20 Court. The Carter plan shows seven  
02:31:14 21 and Reschenthaler 1 is eight and  
02:31:17 22 Reschenthaler 2 is eight. And that's  
02:31:19 23 a difference of just one.

02:31:21 24 Is that correct?

02:31:22 25 A. That's correct.

02:31:23 1 Q. Okay.

02:31:33 2 Briefly then again on table ---

02:31:36 3 we'll jump ahead on Table 6 on page

02:31:38 4 11. You show Reschenthaler 1 and 2 on

02:31:38 5 the mean and median difference as ---

02:31:38 6 I believe you testified one percent.

02:31:47 7 Is that correct?

02:31:47 8 A. Yes.

02:31:47 9 Q. And you further testified that

02:31:48 10 you didn't run a simulation for

02:31:51 11 drawing this map, you just drew one

02:31:53 12 map?

02:31:53 13 A. That's correct.

02:31:54 14 Q. So you didn't draw say 500 maps

02:31:56 15 as Doctor Chen did in League of Women

02:32:00 16 Voters?

02:32:00 17 A. No.

02:32:00 18 Q. And are you aware that under

02:32:02 19 those 500 maps in League of Women

02:32:05 20 Voters the Court made Findings of Fact

02:32:06 21 about what the range of mean median

02:32:12 22 was over those 500 maps. Are you

02:32:12 23 aware of that --- that statistic from

02:32:16 24 that prior proceeding?

02:32:17 25 A. No, I don't recall it.

02:32:17 1 Q. Fair enough. No questions on  
02:32:19 2 that then.

02:32:19 3 I wanted to go to your main  
02:32:21 4 report now. And I'm going to refer to  
02:32:23 5 Figure 2, where you show sort of a  
02:32:26 6 dynamic shifts of Pennsylvania  
02:32:28 7 population over the last ten years.  
02:32:32 8 And I'm hoping I can educate myself a  
02:32:34 9 little bit on this. Does this map  
02:32:38 10 reflect that Pennsylvania has become  
02:32:41 11 more tightly packed in urban areas and  
02:32:44 12 less tightly packed in rural areas?

02:32:48 13 A. That would be one way you might  
02:32:53 14 summarize the fact that population is  
02:32:55 15 growing in places that are relatively  
02:32:57 16 dense and falling in places that are  
02:33:00 17 relatively sparse.

02:33:02 18 Q. So in effect, more populous,  
02:33:02 19 tightly-packed cities and less  
02:33:07 20 populous rural communities, whatever  
02:33:08 21 those things may be, boroughs or et  
02:33:11 22 cetera?

02:33:11 23 A. No, I would push back a little  
02:33:14 24 on that. I don't consider Lancaster  
02:33:14 25 County to be a --- to be tightly

02:33:14 1 packed. I mean, it has tightly-packed  
02:33:14 2 neighborhoods in Lancaster itself, the  
02:33:19 3 city, but some of the places that are  
02:33:21 4 growing rather quickly are more  
02:33:23 5 suburban areas, like Montgomery County  
02:33:26 6 and Lancaster County and parts of  
02:33:26 7 Chester County.

02:33:27 8 Q. Fair enough.

02:33:29 9 Well, if we look at page ten of  
02:33:30 10 this report, and this is --- this is  
02:33:33 11 where I'm sort of where I'm trying to  
02:33:34 12 merge this chart with something you're  
02:33:36 13 saying here. Is the way to interpret  
02:33:41 14 the sentence that begins with  
02:33:42 15 moreover, another pronounced trend in  
02:33:45 16 Pennsylvania and the rest of the  
02:33:46 17 United States is that places that are  
02:33:49 18 gaining population are not only more  
02:33:51 19 Democratic to begin with but are  
02:33:53 20 becoming more Democratic as they gain  
02:33:56 21 population. That sentence, does that  
02:34:00 22 mean that as these areas become  
02:34:00 23 tighter, Lancaster County or city or  
02:34:04 24 otherwise, they tend to become more  
02:34:06 25 Democratic?

02:34:07 1 A. That's just the pattern that's  
02:34:08 2 displayed in Figure 3, that over time  
02:34:11 3 the places that have experienced the  
02:34:12 4 largest population change, which are  
02:34:14 5 also the places that are becoming more  
02:34:16 6 dense, are the --- are places where  
02:34:18 7 the Democratic vote share has  
02:34:19 8 increased. There's a positive  
02:34:23 9 correlation there between those  
02:34:25 10 things.

02:34:25 11 Q. So in the last ten years  
02:34:25 12 Pennsylvania has generally become  
02:34:25 13 tighter in certain areas and more  
02:34:25 14 Democrat in those areas that have  
02:34:32 15 become tighter.

02:34:33 16 Is that correct?

02:34:37 17 A. Yes, with --- with the caveat  
02:34:38 18 that some of the --- some of the  
02:34:39 19 places --- we're talking about  
02:34:39 20 counties here. And some of them are  
02:34:42 21 --- have areas that are really growing  
02:34:42 22 that are not especially dense.

02:34:43 23 Q. Sure. And I want to ask you a  
02:34:45 24 question about the next sentence on  
02:34:47 25 that same page. Likewise, places that

02:34:47 1 are losing population are not only  
02:34:49 2 relatively Republican, to begin with,  
02:34:52 3 but are becoming more Republican and  
02:34:55 4 you actually emphasize more.

02:34:57 5 Does that reflect the  
02:34:58 6 phenomenon that as people go in the  
02:34:58 7 city, these cities and tighter-packed  
02:34:58 8 counties, the places they leave behind  
02:35:07 9 tend to become more Republican?

02:35:08 10 A. Well, it's --- it's --- the way  
02:35:10 11 you described it kind of implies that  
02:35:12 12 the population changed, that people  
02:35:17 13 who are leaving are Democrats or  
02:35:20 14 something like that. We don't know  
02:35:21 15 that. All we know from this --- from  
02:35:23 16 this figure is that in the lower left  
02:35:24 17 corner, the places that are losing  
02:35:25 18 population are becoming more  
02:35:27 19 Republican. So I think this really  
02:35:30 20 more has to do with a --- with a  
02:35:33 21 longstanding trend where population  
02:35:35 22 density and voting are becoming more  
02:35:40 23 correlated over time. So rural areas  
02:35:41 24 are becoming more Republican and urban  
02:35:45 25 areas are becoming more Democratic.



02:35:45 1 That's the main thing that's being  
02:35:48 2 captured here.

02:35:48 3 Q. Is what you're talking about  
02:35:49 4 here the concept of human geography?

02:35:51 5 A. We could call it that, yes.

02:35:52 6 Q. Well, I'm asking if you would  
02:35:53 7 call it that.

02:35:54 8 A. Sure.

02:35:54 9 Q. Okay.

02:35:55 10 And in fact, have you called it  
02:35:57 11 that before in any of your --- your  
02:36:02 12 publications?

02:36:03 13 A. Probably.

02:36:03 14 Q. Okay.

02:36:04 15 And I noted in your --- your  
02:36:06 16 resume attached to your report there's  
02:36:12 17 a number of peer-reviewed journal  
02:36:12 18 articles. What's it mean for an  
02:36:16 19 article to be peer reviewed?

02:36:17 20 A. It means that it's submitted to  
02:36:18 21 a journal and various --- the journal  
02:36:21 22 editor chooses some reviewers who work  
02:36:22 23 in the same field and those reviewers  
02:36:24 24 have to say nice things about it or  
02:36:26 25 the editor will reject it. And if the

02:36:29 1 editor decides to go forward, then it  
02:36:32 2 gets published in the journal.

02:36:33 3 Q. So in effect, what you say is  
02:36:36 4 tested by someone else?

02:36:40 5 A. Tested?

02:36:41 6 Q. Reviewed?

02:36:41 7 A. Reviewed, yes. In the ideal  
02:36:45 8 world perhaps they would take the data  
02:36:47 9 and rerun it, but that doesn't always  
02:36:49 10 happen.

02:36:49 11 Q. Sure. In your peer-reviewed  
02:36:51 12 articles that you list here in your  
02:36:52 13 resume that you submitted to the  
02:36:54 14 Court, did you believe at the time you  
02:36:56 15 published these articles that you were  
02:36:57 16 being truthful, accurate and  
02:36:59 17 descriptive of the conclusions and  
02:37:02 18 findings you were putting in your  
02:37:03 19 article?

02:37:04 20 A. Yes.

02:37:05 21 Q. Okay.

02:37:06 22 And I want to direct your  
02:37:07 23 attention to Unintentional  
02:37:11 24 Gerrymandering. This is on page three  
02:37:12 25 of your report. It was referenced a

02:37:13 1 moment ago. Is that a report, a  
02:37:24 2 peer-reviewed article that you wrote?  
02:37:25 3 A. Yes.  
02:37:25 4 Q. Do you recall the abstract from  
02:37:27 5 that report?  
02:37:28 6 A. No.  
02:37:30 7 Q. Probably not. Eight years ago.  
02:37:35 8 All right. If I could get that  
02:37:36 9 projected on the screen. Does that  
02:37:38 10 look like the article that you  
02:37:39 11 created?  
02:37:40 12 A. Yes.  
02:37:41 13 Q. Okay.  
02:37:41 14 ATTORNEY GORDON:  
02:37:42 15 And I will note for the  
02:37:44 16 record there are some stamps on this.  
02:37:46 17 It appears to have been used in a  
02:37:49 18 proceeding at some point in time.  
02:37:51 19 Those markings are not intended as  
02:37:53 20 evidentiary markings by my party or  
02:37:56 21 for this case.  
02:37:56 22 BY ATTORNEY GORDON:  
02:38:02 23 Q. So let's have a look at that  
02:38:04 24 --- that abstract. In fact, if you've  
02:38:06 25 had a chance to review that, my

02:38:08 1 question is really on the terminal  
02:38:11 2 sentence which appears on the next  
02:38:12 3 page. And it reads, our results  
02:38:14 4 illustrate a strong relationship  
02:38:16 5 between the geographic concentration  
02:38:19 6 of Democratic voters and electoral  
02:38:22 7 bias favoring Republicans.

02:38:24 8 Did I read that correctly?

02:38:25 9 A. Yes.

02:38:25 10 Q. Was that true at the time you  
02:38:27 11 said it?

02:38:27 12 A. Yes.

02:38:27 13 Q. Is it true today?

02:38:30 14 A. Yes.

02:38:30 15 Q. And do you think that applies  
02:38:32 16 to Pennsylvania?

02:38:34 17 A. Well, I've written a book on  
02:38:36 18 that topic, so I'd be happy to talk  
02:38:39 19 about that. Yes, there's a  
02:38:41 20 considerable analysis in the book.  
02:38:44 21 There's a chapter on Pennsylvania in  
02:38:46 22 particular, and it considers exactly  
02:38:48 23 this question. I also have a  
02:38:52 24 follow-up article on --- that focuses  
02:38:53 25 on Pennsylvania. And in that analysis

02:38:56 1 one of the things we --- one of the  
02:39:01 2 things we see is that if we just run a  
02:39:03 3 lot of simulations ---.

02:39:04 4 Q. If I could interrupt you. I'm  
02:39:06 5 on the clock. Your counsel has  
02:39:07 6 rebuttal. I really just want to get  
02:39:09 7 to the terminal statement of this ---  
02:39:12 8 this report.

02:39:14 9 Proving such intent in court  
02:39:15 10 will be difficult in states where  
02:39:17 11 equally egregious electoral bias can  
02:39:21 12 emerge purely from human geography?  
02:39:23 13 Did I read that correctly?

02:39:25 14 A. Yes.

02:39:25 15 Q. And is that --- was that true  
02:39:26 16 when you said it?

02:39:27 17 A. Yes.

02:39:27 18 Q. And is it still true today  
02:39:30 19 about Pennsylvania?

02:39:31 20 A. Yes. I wasn't under the  
02:39:33 21 understanding of this Court --- this  
02:39:35 22 case was about gerrymandering. So I'm  
02:39:36 23 not --- not something I considered in  
02:39:39 24 this --- in my report.

02:39:39 25 Q. Fair enough. Thank you,

02:39:42 1 Doctor.

02:39:42 2 ATTORNEY GORDON:

02:39:43 3 Those are all the  
02:39:44 4 questions I have at this time.

02:39:45 5 JUDGE McCULLOUGH:

02:39:45 6 Thank you, Counsel. We  
02:39:52 7 have the counsel for Representative  
02:39:52 8 McClinton.

02:40:03 9 ATTORNEY SENOFF:

02:40:03 10 Thank you, Your Honor.  
02:40:05 11 David Senoff for Representative  
02:40:08 12 McClinton.

02:40:08 13 ---

02:40:08 14 CROSS EXAMINATION

02:40:08 15 ---

02:40:08 16 BY ATTORNEY SENOFF:

02:40:09 17 Q. Good afternoon, Doctor. I just  
02:40:10 18 have a few questions, which I know is  
02:40:12 19 the death nail for any attorney to say  
02:40:12 20 at the beginning of a Cross  
02:40:12 21 Examination.

02:40:19 22 Doctor, when you were retained  
02:40:22 23 and asked to come here today, your  
02:40:24 24 role was not to give an opinion on  
02:40:26 25 whether any particular map was

02:40:28 1 constitutional or not?

02:40:30 2 Am I correct?

02:40:31 3 A. That's correct. I'm not  
02:40:32 4 usually asked to make that kind of  
02:40:34 5 conclusion.

02:40:35 6 Q. And that's because only a court  
02:40:38 7 or the Supreme Court can do that.  
02:40:41 8 Right?

02:40:41 9 A. Correct.

02:40:41 10 Q. Now, in creating your plan in  
02:40:45 11 specific that's been gone over, did  
02:40:48 12 you consider Pennsylvanian's statewide  
02:40:54 13 voter registration data as it reflects  
02:40:59 14 party registration?

02:41:02 15 A. I did not make use of  
02:41:04 16 registration data. I just --- I only  
02:41:06 17 made use of observed election results  
02:41:10 18 at the precinct level.

02:41:10 19 Q. And in reaching your  
02:41:11 20 conclusions, did you give any thought  
02:41:13 21 to vote dilution or disenfranchisement  
02:41:18 22 in any way?

02:41:19 23 A. I was only thinking in broad  
02:41:21 24 terms about partisan fairness after  
02:41:24 25 drawing my map and did some

02:41:26 1 rudimentary analysis. But vote  
02:41:26 2 dilution in particular was not a  
02:41:26 3 concept that I tried to --- that I  
02:41:35 4 tried to evaluate.

02:41:35 5 Q. And in looking at your map, as  
02:41:37 6 you said, in a rudimentary way with  
02:41:41 7 regard to those factors, did you make  
02:41:44 8 any changes to the map as a result?

02:41:46 9 A. No.

02:41:51 10 Q. Thank you, Doctor.

02:41:51 11 ATTORNEY SENOFF:

02:41:53 12 I don't have any - any  
02:41:54 13 other questions.

02:41:54 14 JUDGE McCULLOUGH:

02:41:54 15 You stood by your words.

02:41:56 16 ATTORNEY SENOFF:

02:41:56 17 I'm going to try to do  
02:41:58 18 that through the whole trial.

02:41:58 19 JUDGE McCULLOUGH:

02:41:59 20 Okay, Counsel. You can  
02:42:01 21 do what you need. Thank you. And  
02:42:02 22 then for Senator Costa, Counsel,  
02:42:02 23 please.

02:42:02 24 ---

02:42:02 25 CROSS EXAMINATION



02:42:21

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02:42:21

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BY ATTORNEY ATTISANO:

02:42:22

3

Q. Hi, Doctor Rodden. When you

02:42:22

4

referred to partisan fairness, can you

02:42:24

5

just tell us briefly what you're

02:42:25

6

referring to?

02:42:25

7

A. I think many of us have the

02:42:27

8

notion that 50 percent of the votes

02:42:30

9

should correspond to 50 percent of the

02:42:31

10

seats in expectation, that there's a

02:42:33

11

correspondence between the statewide

02:42:35

12

vote share and the statewide seat

02:42:38

13

share. That's the basic concept I had

02:42:40

14

in mind.

02:42:40

15

Q. Is that --- on your reply

02:42:40

16

report, page nine, Table 5, is that

02:42:47

17

what that table is about?

02:42:47

18

A. Yes, that's just an effort to

02:43:01

19

provide for the Court some basic

02:43:03

20

information that is related to the

02:43:05

21

partisanship of the map. I don't

02:43:09

22

think it clearly translates into ---

02:43:11

23

there's not a measure of fairness that

02:43:14

24

we can extract from this. I've tried

02:43:19

25

to communicate it's a little more

02:43:19 1 subtle than that.

02:43:20 2 Q. Is it fair to say that when you  
02:43:22 3 did those statistics you used a  
02:43:24 4 statewide vote share of 50/50 split  
02:43:27 5 between Democrats and Republicans  
02:43:27 6 based on the historical election data  
02:43:29 7 that you drew from.

02:43:31 8 Is that fair?

02:43:31 9 A. The data that --- the data I  
02:43:33 10 drew from, as I explained in the  
02:43:35 11 initial report, if we look at those  
02:43:37 12 elections, I think it's something like  
02:43:39 13 52 percent Democratic, on average.

02:43:42 14 Q. Okay.

02:43:45 15 Did you adjust any data to test  
02:43:47 16 this whenever you increased the vote  
02:43:52 17 share statewide for Democrats, for  
02:43:55 18 example, taking it from 52 percent to  
02:43:58 19 54 or 55 percent? Did you run an  
02:44:00 20 analysis like that?

02:44:02 21 A. Well, we can mentally run that  
02:44:06 22 analysis by looking at this table and  
02:44:08 23 knowing what the statewide vote share  
02:44:11 24 from which I drew the data, what it  
02:44:13 25 looked like. And if we just imagine

02:44:14 1 that that share, that shift, say a two  
02:44:14 2 percentage point shift happens equally  
02:44:22 3 across all districts, then we can ---  
02:44:23 4 we can ask ourselves what would happen  
02:44:25 5 to these districts under that  
02:44:27 6 situation and we could certainly do a  
02:44:29 7 more thorough analysis like that. But  
02:44:31 8 that's not something I included in my  
02:44:34 9 report.

02:44:34 10 Q. Okay.

02:44:34 11 And so you agree, though, you  
02:44:35 12 didn't run that analysis?

02:44:37 13 Correct?

02:44:37 14 A. Correct.

02:44:38 15 Q. Isn't it possible that with an  
02:44:41 16 analysis like that the increase in  
02:44:43 17 statewide vote share will not  
02:44:45 18 automatically proportionally increase  
02:44:51 19 the proportion of seats in a map? Is  
02:44:57 20 that possible?

02:44:58 21 A. Well, I think in the --- if I  
22 understand you correctly, the question  
23 seems to be about if we wanted to  
24 conduct that exercise, would it be  
25 realistic to imagine that a two

1 percentage point swing was experienced  
2 in exactly the same way in every  
3 district. That's the way analysts  
4 often do this. If I understand the  
02:45:13 5 question correctly, it's --- the  
02:45:14 6 question is whether that makes -  
02:45:15 7 whether we should do that, is that  
02:45:17 8 realistic. Is that --- is that the  
02:45:18 9 question?  
02:45:19

10 Q. The question is, is it possible  
11 that the analysis could come out that  
02:45:20 12 it is not a proportional increase in  
02:45:26 13 seat share?  
02:45:30

14 A. Well, right. So if we imagine  
15 that there's a shift in the vote  
02:45:34 16 share, might we get --- yes, if we  
02:45:37 17 have a large shift in the --- in the  
02:45:43 18 vote share, then the seat share may  
02:45:45 19 very well not be proportional to the  
02:45:46 20 vote share. That's correct.  
02:45:51

21 Q. And for example, if the  
02:45:54 22 increase in vote share statewide for  
02:45:55 23 one party showed a more dramatic shift  
02:45:58 24 in proportional gain of seats, would  
02:46:03 25 that tell us --- more dramatic shift  
02:46:10  
02:46:13

02:46:16 1 as opposed to the other parties'  
02:46:18 2 statewide increase, would that tell us  
02:46:20 3 anything about the partisanship of a  
02:46:28 4 map?

02:46:28 5 A. Well, that's just a different  
02:46:29 6 way of defining, I guess, the  
02:46:30 7 partisanship of the map, that yes, if  
02:46:30 8 we --- we are interested in knowing  
02:46:30 9 the responsiveness of the map to  
02:46:35 10 changes in the vote share, so what  
02:46:35 11 would happen if there was a big shift  
02:46:40 12 in one direction or the other, and we  
02:46:40 13 could certainly conduct an analysis  
02:46:42 14 where we just imagine that shift to  
02:46:44 15 happen to all the districts and we see  
02:46:47 16 what happens, and one of the things we  
02:46:48 17 know about the transformation of votes  
18 to seats in general is that as one  
19 party gets a larger and larger  
20 majority, its --- its seat share ends  
21 up increasing by --- by more than its  
22 vote share. That's something that  
02:47:06 23 traditionally happens when a party  
02:47:08 24 wins by a large majority.

02:47:08 25 Q. And Doctor, I believe on Direct

02:47:10 1 you said you didn't consider any  
02:47:11 2 racial data in your analysis.  
02:47:14 3 Is that correct?  
02:47:14 4 A. That's correct.  
02:47:15 5 Q. Okay.  
02:47:16 6 Why don't --- why didn't you do  
02:47:19 7 that?  
02:47:19 8 A. Well, that's one thing I know  
02:47:21 9 to be illegal, to draw district  
02:47:24 10 boundaries. Though I'm no lawyer, I  
02:47:28 11 do know that it's not permissible to  
02:47:29 12 draw district boundaries with race as  
02:47:31 13 a predominant guiding principle.  
02:47:36 14 Typically, it would also be --- it  
02:47:38 15 would make sense after drawing a plan  
02:47:39 16 to then assess its compliance with the  
02:47:43 17 Voting Rights Act. This was a  
02:47:45 18 situation in which I was drawing from  
02:47:46 19 a plan and deviating very little from  
02:47:49 20 a plan that was --- that I understood  
02:47:51 21 to not have been challenged in any  
02:47:54 22 way. It just made it through the  
02:47:55 23 process four years ago in the Supreme  
02:47:57 24 Court of Pennsylvania and there was no  
02:48:00 25 VRA challenge that I was aware of.

02:48:04 1 And the districts in the surroundings  
02:48:07 2 of minority communities changed hardly  
02:48:11 3 at all in my plan. So that was the  
02:48:12 4 extent of my consideration of Voting  
02:48:14 5 Rights Act claims.

02:48:14 6 Q. You were asked by another  
02:48:15 7 counsel about human geography in  
02:48:21 8 Pennsylvania, and you were giving an  
02:48:22 9 answer and then it got cut off. Do  
02:48:25 10 you remember that?

02:48:25 11 A. Yes.

02:48:25 12 Q. Could you go ahead and please  
02:48:27 13 address that issue of human geography  
02:48:29 14 in Pennsylvania that you were  
02:48:30 15 addressing in which you were cut off?

02:48:32 16 A. Yes. And might still have to  
02:48:34 17 cut me off because it's a topic on  
02:48:36 18 which I'm very interested.

02:48:37 19 Q. I got eight minutes, so I hope  
02:48:38 20 I don't have to.

02:48:38 21 A. But let me give you the very  
02:48:39 22 brief version of it. It's just that  
02:48:45 23 the --- that the --- that at the scale  
02:48:45 24 of congressional districts, the  
02:48:49 25 problem I described in the paper with

02:48:49 1 Jowei Chen had to do with  
02:48:52 2 concentrations of Democrats in very  
02:48:53 3 large cities, but also to some extent  
02:48:53 4 a concentration of Democrats in  
02:48:57 5 smaller cities in such a way that the  
02:48:59 6 distribution of Democrats across  
02:49:01 7 districts ended up being inefficient  
02:49:04 8 for the Democratic party. And I  
02:49:06 9 pointed out in this work that similar  
02:49:07 10 things have happened in other context.  
02:49:11 11 But we can't make broad  
02:49:12 12 statements about that regarding every  
02:49:14 13 context. It's necessary to focus on a  
02:49:16 14 specific context, and I've done that  
02:49:18 15 in the Pennsylvania congressional  
02:49:20 16 context. And one thing we see is when  
02:49:22 17 we do a lot of simulations a good  
02:49:26 18 share of those simulations end up in a  
02:49:32 19 range that --- that is --- that  
02:49:34 20 produces the kind of partisan fairness  
02:49:36 21 we're talking about. So it is not the  
02:49:38 22 case that the human geography in  
02:49:40 23 Pennsylvania somehow requires that we  
02:49:41 24 draw unfair districts. There's just  
02:49:44 25 no --- there's no evidence for that



02:49:46 1 whatsoever.

02:49:46 2 Q. When it comes to drawing unfair  
02:49:50 3 districts, is it possible to  
02:49:53 4 unintentionally draw an unfair  
02:49:54 5 district?

02:49:54 6 A. Yes.

02:49:54 7 Q. And it's possible to  
02:49:56 8 intentionally draw an unfair district.  
02:49:58 9 Correct?

02:49:58 10 A. Yes.

02:49:59 11 Q. And with respect to  
02:50:00 12 gerrymandering, is it possible to  
02:50:02 13 unintentionally draw a gerrymandered  
02:50:06 14 district?

02:50:06 15 A. Then it depends on how we  
02:50:08 16 define gerrymandering. Then we get  
02:50:10 17 into some philosophical conversations.  
02:50:14 18 Do we --- do we define gerrymandering  
02:50:16 19 to be any deviation from something  
02:50:18 20 that would emerge from a million  
02:50:22 21 simulations or do we find  
02:50:23 22 gerrymandering to be an intentional  
02:50:28 23 effort to favor a party. If we define  
02:50:29 24 it that way, then if it's  
02:50:30 25 unintentional, then we wouldn't

02:50:33 1 include it in the definition of  
02:50:34 2 gerrymandering.

02:50:35 3 Q. And you agree that it's  
02:50:38 4 possible to unintentionally draw an  
02:50:40 5 unfairly partisan district.

02:50:44 6 Correct?

02:50:46 7 A. Yes.

02:50:50 8 ATTORNEY ATTISANO:

02:50:51 9 Thank you.

02:50:51 10 JUDGE McCULLOUGH:

02:50:51 11 Thank you, Counsel. I  
02:50:52 12 believe that's all on Cross. Does the  
02:50:59 13 Petitioner have Redirect?

02:51:16 14 ATTORNEY JASRASARIA:

02:51:17 15 Good morning, Your  
02:51:19 16 Honor. Again Jyoti Jasrasaria for the  
02:51:20 17 Carter Petitioners. Hello, Doctor  
02:51:23 18 Rodden. I don't have any Redirect  
02:51:25 19 questions, but I just wanted to ask  
02:51:26 20 Your Honor, I understand, based on a  
02:51:31 21 stipulation this morning, that Doctor  
02:51:34 22 Rodden's report has already been  
02:51:34 23 admitted. But if necessary, I would  
02:51:36 24 move to admit that. And I'm happy to  
02:51:38 25 offer hard copies if that's necessary

02:51:40 1 this morning to confirm that.

02:51:42 2 JUDGE McCULLOUGH:

02:51:42 3 I think we have  
02:51:43 4 everything on the docket, if I'm  
02:51:43 5 correct. And they --- you're correct,  
02:51:51 6 they were admitted per the  
02:51:51 7 stipulations of counsel this morning.

02:51:53 8 ATTORNEY JASRASARIA:

02:51:53 9 Okay. Excellent.

02:51:55 10 And I also just wanted  
02:51:56 11 to raise the issue of declarations  
02:51:58 12 from the Carter Petitioners. I  
02:51:59 13 understand that no party is  
02:52:02 14 challenging standing, but I'm just  
02:52:05 15 offering declarations from most of our  
02:52:08 16 Petitioners to establish where they  
02:52:11 17 live and where they intend to vote.  
02:52:12 18 And I believe my colleague, Matthew  
02:52:17 19 Gordon, has already made these  
02:52:18 20 available to other counsel.

02:52:20 21 JUDGE McCULLOUGH:

02:52:21 22 All right.

02:52:21 23 Does anyone have any  
02:52:22 24 objection? Then they can be  
02:52:26 25 admitted ---

02:52:28

1

ATTORNEY JASRASARIA:

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2

Thank you.

02:52:30

3

JUDGE McCULLOUGH:

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4

--- if there's no

02:52:30

5

objections. Do you have hard copies?

02:52:32

6

ATTORNEY JASRASARIA:

02:52:32

7

I do. Thank you, Your

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8

Honor. That's all for me.

02:52:56

9

JUDGE McCULLOUGH:

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10

All right.

02:52:56

11

Thank you very much.

02:52:57

12

And then you're finished with your

02:52:59

13

witness?

02:53:00

14

ATTORNEY JASRASARIA:

02:53:00

15

Yes.

02:53:00

16

JUDGE McCULLOUGH:

02:53:01

17

And Doctor Rodden, thank

02:53:02

18

you very much. You may step down.

02:53:02

19

THE WITNESS:

02:53:04

20

Thank you.

02:53:10

21

JUDGE McCULLOUGH:

02:53:10

22

I was just looking at

02:53:11

23

the time. As I had told counsel, I

02:53:13

24

don't want to take long breaks, but I

02:53:14

25

think maybe you might need a 15-minute

02:53:16 1 break, comfort break. Can I have a  
02:53:19 2 nod of heads yes or no? Yes. Okay.  
02:53:21 3 We'll take a 15-minute break and then  
02:53:24 4 reconvene to begin Direct Examination  
02:53:24 5 of Gressman --- Petitioner Gressman's  
02:53:39 6 witness. Thank you.

02:53:39 7 COURT CRIER HOLLAND:  
02:53:40 8 Commonwealth Court is  
02:53:41 9 now in recess.

10 ---  
11 (WHEREUPON, A SHORT BREAK WAS TAKEN.)

12 ---  
13 COURT CRIER HOLLAND:  
14 Commonwealth Court is  
03:19:55 15 back in session.

03:19:55 16 JUDGE McCULLOUGH:  
17 Please be seated. Thank  
18 you all for doing that quickly.

19 So now we will proceed  
20 with the Petitioners Gressman calling  
21 their expert witness.

03:19:58 22 Counsel?

03:19:58 23 ATTORNEY RING-AMUNSON:

03:19:58 24 Thank you, Your Honor.  
03:19:59 25 We call Doctor Daryl DeFord.

03:19:59

1

JUDGE MCCULLOUGH:

03:19:59

2

He knows his way around

03:19:59

3

to the witness stand now, because

03:19:59

4

Doctor Rodden had to do it first.

03:20:23

5

Okay.

03:20:23

6

COURT CRIER TURNER:

03:20:24

7

Please raise your right

03:20:25

8

hand.

03:20:25

9

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10

DARYL DEFORD,

11

CALLED AS A WITNESS IN THE FOLLOWING

12

PROCEEDINGS, HAVING FIRST BEEN DULY

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SWORN, TESTIFIED AND SAID AS FOLLOWS:

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DIRECT EXAMINATION

03:20:43

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BY ATTORNEY RING-AMUNSON:

03:20:44

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Q. Good afternoon, Doctor DeFord.

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19

You can take your mask off if you

03:20:44

20

want. Thank you.

03:20:45

21

Could you please introduce

03:20:46

22

yourself to the Court?

03:20:47

23

A. Sure. Good morning. My name

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is Darryl DeFord. I'm an assistant

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professor of data analytics in the

03:20:53 1 department of mathematics and  
03:20:55 2 statistics at Washington State  
03:20:56 3 University.

03:20:56 4 Q. And Doctor DeFord, do you have  
03:20:58 5 experience evaluating electoral maps?

03:21:01 6 A. I do, yes.

03:21:02 7 Q. Could you please summarize it  
03:21:03 8 for the Court?

03:21:06 9 A. Sure. So for the last three  
03:21:08 10 years most of my main, sort of  
03:21:09 11 research work has focused on studying  
03:21:09 12 sort of the mathematical and  
03:21:09 13 computational methods for evaluating  
03:21:09 14 redistricting plans, including any  
03:21:19 15 sort of peer-reviewed academic  
03:21:19 16 publications as well as practical work  
03:21:23 17 with actual maps.

03:21:23 18 Q. And I'm going to ask you to  
03:21:25 19 speak slowly and clearly so the Court  
03:21:29 20 Reporter can get down everything  
03:21:30 21 you're saying without breaking any  
03:21:32 22 fingers.

03:21:36 23 Are you aware that the Court is  
03:21:37 24 here to evaluate which congressional  
03:21:40 25 math to adopt for Pennsylvania based